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ABSTRACT

A global thematic study on literacy and adult education considered trends and innovations particularly salient during the World Conference on Education for All (WCEFA) decade. According to the most recent UNESCO statistics, world illiteracy rates dropped over the last 20-30 years because of increased primary school enrollments, yet the actual number of people with low literacy remained relatively constant, due to population growth. Of the estimated 887 million illerates in 2000 (27 percent of the adult population in developing countries), the majority were women. Innovative ways of meeting learner needs, while enhancing motivation, were language policy and planning; empowerment and community participation; learning, instruction, and materials design; gender and family; multi-sectoral connections; post-literacy and income-generation; and technology and distance education. A major need was identified to develop systems and capacities that enable administrators, teachers, and tutors to engage in professional staff training and development as an ongoing process and to link staff development more closely with service improvement and evaluation/monitoring. Many agencies provided support for literacy and adult education. A future challenge was for literacy and adult education to focus on which kinds and what levels of literacy are required for each society and societal group. (Appendixes contain 56 references, 3 tables, and 8 figures.) (YLB)

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EFA 2000 Thematic Study

Commissioned by the EFA 2000 Secretariat/UNESCO

on

LITERACY AND ADULT EDUCATION

For Presentation at the

World Education Forum, Dakar

April 2000

Prepared by the

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For Presentation at the
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EXECUTIVE SUMMARY

Introduction

The 1990 World Conference on Education for All (WCEFA) in Jomtien, Thailand included adult literacy as one of its six major worldwide goals. Specifically, a number of national educational goals related to youth and adult education were agreed upon, including: (1) to reduce the number of adult illiterates to half of the 1990 level by the year 2000; and (2) to improve learning achievement to an agreed percentage of an appropriate age cohort (which might vary from country to country). As part of all Jomtien goals, a new approach to learning was emphasized, one that focused on measurable learning achievement (rather than mere class attendance or participation). These challenges, then, have formed the basis for much of renewed international interest in literacy and adult education over the past decade, and, in many ways, remain the continuing Jomtien challenge for the first quarter of the new millennium.

Although the complete elimination of illiteracy by the year 2000 was adopted as a goal of UNESCO and a significant number of its member states in the Udaipur Declaration of two decades ago, the Jomtien Conference scaled back such promises, and chose a more modest, and theoretically achievable, goal of cutting illiteracy rates in half by the year 2000. The reasons for this reduction in targeted goal were numerous. As this report will describe, important gains have been made in literacy and adult education over the past decade since Jomtien – in various places and using various methods – but the overall literacy situation remains still today one of the major challenges of the 21st century.

During the 1990s, views on literacy and illiteracy have changed dramatically. Many literacy specialists and policy makers have moved away from the monolithic view of illiteracy as a disease in which the germs might be 'eradicated' with an appropriate drug or vaccination. Rather, literacy is now more broadly viewed as a product of educational, social and economic factors that cannot be radically changed in short periods of time. Indeed, while numerous efforts have been undertaken in both research and practice in the past decade, it comes as no surprise that the fundamental problems, and the global statistics, on literacy have changed only moderately, whether in industrialized or developing countries. Nonetheless, due in large part to increasingly competitive and knowledge-based economies across the world, most governments and international/bilateral agencies have expressed increased concern about illiteracy and low literacy since Jomtien, even though resource allocations have remained at a disproportionately small fraction of what is contributed to formal schooling.

The present global thematic study on literacy and adult education considers trends and innovations that have been particularly salient over the WCEFA decade, though many of these same issues have been present during the preceding decades. The particular focus here is on the knowledge base that is currently available as well as the gaps that need to be filled in order for the field to make substantial progress in the coming decade and beyond. The 'bottom line' of this study is that the overlapping fields of literacy and adult education can and must do much better in the future, but will require not only more fiscal resources, but professional expertise (including teachers, specialists, programme directors, and policy makers) as well.

Concepts and definitions

Many countries have been actively striving to meet Jomtien's major goal of meeting the basic learning needs for all children, youth and adults, as well as the conjoint necessity for an adequate methodology for understanding whether such goals are being met. Current national and international capacities remain limited, however, for a variety of historical reasons. In the literacy domain, there is a long tradition of statistics gathering, but due to changing definitions of literacy, as well as a dearth of human capacity in the educational measurement field, the data on literacy have long been open to question and debate.

Many definitions exist for literacy. All relate in some way, at their core, to an individual's ability to understand printed text and to communicate through print. Most contemporary definitions portray literacy in relative rather than absolute terms. They assume that there is no single level of skill or knowledge that qualifies a person as "literate", but rather that there are multiple levels and kinds of literacy (e.g., numeracy, technological literacy). In

order to have bearing on real life situations, definitions of literacy must be sensitive to skills needed in *out-of-school* contexts, as well as to school-based competency requirements.

Historically, it was possible to make an arbitrary distinction between those who had been to school and those who had not; this was especially obvious in the newly independent countries of the developing world, which were just beginning to provide public schooling beyond a relatively small elite. Those who had been to school were labeled as "literate." However, this situation has changed dramatically. While there are still millions of adults who have never attended school, in even the poorest countries of the world the majority of the population in the two youngest generations (up to about age 40 years) has received some schooling. While this leaves open the serious question of the level of literacy of this perhaps minimally-schooled population, it nonetheless points to a world with a much more variegated landscape of literacy skills, levels of achievement, and degree of regular use.

Jomtien influenced the definitional aspect of the literacy goal by broadening the discussion to that of basic learning needs or competencies (BLCs), which are seen not only in terms of mastery of the 3 R's (reading, writing and arithmetic), but also in terms of other knowledge, problem-solving and life skills. Together, BLCs are thought to promote empowerment and access to a rapidly changing world. They should support independent functioning and coping with practical problems or choices as a parent or worker or citizen, and are seen as critical gatekeeper to job entry and societal advancement in all countries. Thus, when defining BLCs, there is a need to refer both to formal school-based skills (such as ability to read prose text or to understand mathematical notations) and also to the ability to manage functional tasks and demands, regardless of whether such competencies were developed through formal or nonformal education, or through personal experiences in diverse informal learning situations. The challenge of changing definitions is not a trivial one, and will influence not only how policy makers view literacy goals, but also how programme developers will seek to promote literacy and adult education in the 21st century.

Status and trends in literacy statistics

In order to provide worldwide statistical comparisons, international agencies have relied almost entirely on data provided by their member countries. According to the most recent UNESCO statistics (and estimates), world literacy rates have been dropping over the last 2-3 decades, apparently due primarily to increases in primary school enrollments. Yet these data also indicate that the actual numbers of illiterates have remained relatively constant, due to population growth. It was once assumed that increased efforts for achieving universal primary schooling would lead to a drop toward zero in adult illiteracy around the world. These optimistic views are no longer widely held, for a variety of reasons including: continued increases in population growth in developing countries; declining quality of basic education where rapid expansion has taken place; upward changes in the skill standards for literacy, both in developing and industrialized countries; improved measurement of literacy through surveys which show that previous estimates of literacy based on school grade levels achieved often overestimate actual basic learning competencies .

According to UNESCO, there were an estimated 962 million illiterates in the world in 1990, 885 million in 1995, and an estimated 887 million in 2000, constituting 27% of the adult population in the developing countries. Of these illiterates, the majority are women, in some countries accounting for up to two-thirds of adult illiteracy. Regionally, Eastern and Southern Asia have the highest number of illiterates, with an estimated 71% of the world's total illiterate population. The Sub-Saharan Africa and Arab regions have about the same (40%) adult illiteracy rate, with Latin America at about half this rate. Overall, the geographic distribution of adult illiterates has not changed very much over the Jomtien decade (or over the past several decades). However, it should be noted that comparisons of illiteracy rates in developing and industrialized countries can be misleading, since definitions of literacy and illiteracy now vary widely, and the UNESCO statistics on industrialized countries are no longer seen by OECD countries as applicable. One consequence of these changes in standards (and the international surveys that have been done in recent years) is that adult literacy has become, during the Jomtien decade, a greatly increased policy interest in OECD countries. Policy interest in literacy in developing countries remains high, but competition for resources has remained a major impediment.

Domains of innovation

Innovations are central to future success in literacy and adult education, and learner motivation, once access is achieved, is a key dimension for any programmatic improvement. This is true whether one is in Bangladesh or in Bolivia. A major problem consistently mentioned by service providers and policymakers is that participation levels drop off rapidly after the first weeks or months of programme participation. Many varied and valid reasons have been

cited as causes of this problem, such as: inadequate programme quality; lack of time and resources of learners; poor quality of textbooks and pedagogy; lack of social marketing; and so forth. There is little doubt, however, that the general factor behind all of these technical issues is that learners, for whatever sets of reasons, do not feel motivated to participate and remain in such voluntary programmes.

Innovative ways of meeting learner needs while at the same time enhancing learner motivation include: language policy and planning (e.g., providing more robust methods for introducing mother-tongue and second language literacy), empowerment and community participation (e.g., decentralization of literacy provision through NGOs), learning, instruction and materials design (e.g., better concatenation in materials development and production between formal and non-formal education domains), gender and family (e.g. further growth of intergenerational, mother-child literacy programmes), multi-sectoral connections (e.g., adapting literacy instruction for integration with health education and agricultural extension programmes), post-literacy and income-generation (e.g., integration of literacy with income generation schemes), technology and distance education (e.g., use of multimedia for improved teacher training). Case examples of developments in each of these areas are provided in this study.

Capacity building, professional development and external agency support

Capacity building is at the heart of the renewal of effective and high quality work in literacy and adult education. The committed involvement of professionals is required for any system-wide change. One major limitation for change in adult literacy is that the large majority of the instructional staff is part-time (including volunteers with high turnover). Furthermore, there have been only limited resources and strategies for involving full-time professionals as well as volunteer and part-time instructors and tutors in meaningful professional development. There is a major need to develop systems and capacities that enable administrators, teachers, and tutors to engage in professional staff training and development as an ongoing process within programmes and to link staff development more closely with service improvement and evaluation/monitoring. Teachers and administrators should have more opportunities to understand and learn from local problems and to invent local solutions. Increasing the proportion of full-time instructors is an essential element of enhanced professional development; without more full-time staff, programmes have little incentive to spend scarce resources on professional development.

Many agencies, bilateral and multilateral, provide support for literacy and adult education, but only UNESCO has put literacy in its top list of educational priorities over recent decades. Two UNESCO-supported institutions – UNESCO Institute of Education in Hamburg, which organized CONFINTEA-V in 1997, and the International Literacy Institute, which organized the World Conference on Literacy (Philadelphia, 1996) and a series of regional forums on literacy – have helped UNESCO's international agenda in literacy and adult education. In addition, UNDP, UNICEF and the World Bank have supported adult literacy programmes over the decades, along with a number of key bilateral agencies (such as NORAD, SIDA, DFID, CIDA, DSE, DANIDA, USAID). As part of its Education Sector Review (1997), the World Bank, in collaboration with Norway, has begun recently an important initiative on adult basic education and literacy in Africa. Various evaluation projects have been commissioned such as in Uganda, and projects in Ghana, Senegal, Gambia and elsewhere are underway or in planning. UNDP was active in the 1960s-1970s with the Experimental World Literacy Programme, and UNICEF remains active in promoting basic skills and life skills for out of school youths (particularly girls and young women).

Challenges for the future

Literacy and adult education will need to focus more than ever before on which *kinds* and what *levels* of literacy are required for each society, as well as for specific groups within that society. The year 2000 international statistics, dramatic as they remain, do not fully reveal the endemic problems associated with adult literacy work. The central problem, as with the broader field of education, is the *quality* of the education as it relates to the *individual* adult learner. National campaigns and programmes have often gone wrong because of the need for too rapid progress and for economies of scale. This combination of factors has led to low motivation on the part of adult learners around the world, and to poor outcomes in both learning achievement and participation rates. What is needed is a greater focus on programme quality along the following themes: professional development, learner motivation, knowledge-based programme design, and increased openness to new approaches. Each of these challenges is described very briefly below:

Professional development. The professional development of administrators, directors, teachers, and tutors is an ongoing and critical process for programme improvement in literacy and adult education. Teachers and administrators should have more opportunities to investigate local problems and to invent local solutions. By assuring a greater percentage of full-time teachers, literacy programmes will have a great incentive to invest in staff training and development, which are central to improving the quality of all literacy and adult education programmes.

Learner motivation. The motivation of adult learners is a key dimension that either can promote participation and retention, or, when lacking, can lead to poor take up and retention of literacy and adult education programmes. In contrast to what was thought over recent decades, the challenge of motivation lies not in providing the "political will" of governments, but rather in finding ways to provide what the private sector terms, rather simply, "customer service." Thus, in order to reach the unreached and the most excluded (e.g., unschooled, women, ethnic-linguistic minorities, rural, and migrants) programmes will need to be tailored to address diverse needs, and have direct, discernable outcomes, and incentive-rich experiences.

Knowledge-based programme design. Much more needs to be done in order to build the knowledge base and expertise employed in the service of literacy and adult education. Relative to other education areas, few research studies are being produced in literacy and adult education, and donor agencies have been too reluctant in their support serious evaluation studies or applied research. To move the field forward will require a greater emphasis on what works and what doesn't, as well as further support from donor agencies.

Openness to new approaches. A striking aspect of adult literacy work is its relative isolation. For the most part, literacy and adult education specialists and practitioners have little contact with mainstream specialists in education, and even less with sectors outside of education. There is an overall need to be open to diversity in learners and in the contexts in which they reside. No new approach is more obvious than technology, which has been taken up increasingly in the formal school settings, but has yet to have a serious input into adult education in most countries. Indeed, in developing countries, the overall limitations in fiscal and human resources have meant that technology remains far from being implemented, even though substantial cost-effectiveness appears to be achievable.

Conclusions

At the Jomtien conference, the literacy goal was to reduce the illiteracy rate in each country by 50% in one decade. This has not happened in any country. And yet there is a widening recognition that low-literacy and poor basic learning competencies (by varying standards) are even more prevalent today than had been assumed a decade ago. Furthermore, with population growth the absolute number of illiterates has declined very little since Jomtien.

With national economies and civic participation more dependent than ever on an educated and literate citizenry, the world education community is faced with multiple and serious challenges. On the one hand, agencies which support or engage in literacy work need to be more realistic about what can be achieved within budget constraints. Such realism entails lowering expectations about major changes in individual, social, and economic outcomes, while at the same time holding literacy service providers to higher standards of accountability and professionalism. As in formal schooling, literacy and adult education do not provide a magic answer for any society, but they are part and parcel of all aspects of national development. On the other hand, agencies can enhance adult literacy programmes by:

- Building a more solid knowledge base for field-based innovations,
- improving professional development and human resources capacity,
- providing better pathways from non-formal youth and adult literacy programmes into the formal school system,
- combining non-formal programmes for adults and early childhood programmes,
- taking advantage of new technologies, and
- investing resources in assessment, evaluation and monitoring, surveys and applied research, and
- creating new synergies and collaborations between governmental and non-governmental agencies.

This global thematic study has attempted to highlight some of the most important problems and prospects in improving the quality of literacy and adult education work, and efforts to meet the needs of people who are often excluded or marginalized from quality education. The importance of literacy and basic learning competencies in the lives of people the world over is difficult to overestimate. The simple fact that even today nearly one-quarter of humanity lacks such essential – and obtainable – competencies still shocks the world. It will be all the more striking in the year 2020, if we have been unable to substantially improve this situation. Yet the tools for making major gains are within reach if the best know-how can be put into service. Future literacy and adult education work will require a sustained, coherent, informed and increased effort.

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Located in Philadelphia, the ILI was officially established in 1994 by UNESCO and the University of Pennsylvania/Graduate School of Education. The mission of the ILI is to provide leadership in research, development, and training in the broad field of international literacy and development, with an emphasis on developing countries. For more information: www.literacyonline.org. Or telephone 215-898-2100, Fax 215-898-9804.

List of Abbreviations and Acronyms

BLC	Basic Learning Competency
CBO	Community Based Organization
CIDA	Canadian International Development Agency
DANIDA	Danish International Development Agency
DFID	Department for International Development (U.K.)
DSE	German Agency for International Development
LDC	Less Developed Country
NFE	Non-Formal Education
NGO	Non-Governmental Organization
NORAD	Norwegian Agency for Development
SIDA	Swedish International Development Agency
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development
WCEFA	World Conference on Education for All (Jomtien, Thailand, 1990)

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INTRODUCTION

> Conscious of the need to arouse awareness, nationally and internationally, that the struggle against illiteracy can be won, to demonstrate solidarity with those working on behalf of the thousand million adult illiterates in the world, and to vigorously mobilize the resources and will to eradicate illiteracy before the end of this century...(we) hereby adopt this Declaration... (The Udaipur Literacy Declaration, 1982).
>
> Reduction of the adult illiteracy rate ... to, say, one-half its 1990 level by the year 2000, with sufficient emphasis on female literacy to significantly reduce the current disparity between male and female illiterate. (Target 6; Report on World Conference on Education For All, Jomtien, 1990).

The 1990 World Conference on Education for All (WCEFA) in Jomtien, Thailand included adult literacy as one of its six major worldwide goals. Although the complete elimination of illiteracy by the year 2000 was adopted as a goal of UNESCO and a significant number of its member states in the Udaipur Declaration (cited above) of two decades ago, the Jomtien Conference scaled back such promises, and chose a more modest, and theoretically achievable, goal of cutting illiteracy rates in half by the year 2000. The reasons for this reduction in targeted goal were numerous. As this report will describe, important gains have been made in literacy and adult education over the past decade since Jomtien – in various places and using various methods – but the overall literacy situation remains still today one of the major concerns of the 21st century.

During the 1990s, views on literacy and illiteracy changed dramatically. Many literacy specialists and policy makers have moved away from the monolithic view of illiteracy as a disease in which the germs might be 'eradicated' with an appropriate drug or vaccination. Rather, literacy is now more broadly viewed as a product of educational, social and economic factors that cannot be radically changed in short periods of time. Indeed, while numerous efforts have been undertaken in both research and practice in the past decade, it comes as no surprise that the fundamental problems, and the global statistics, on literacy have changed only moderately, whether in industrialized or developing countries. Nonetheless, due in large part to increasingly competitive and knowledge-based economies across the world, most governments and international/bilateral agencies have expressed increased concern about illiteracy and low literacy since Jomtien, yet resource allocations have remained a disproportionately small fraction of what is contributed to formal schooling.

The present global thematic study on literacy and adult education considers trends and innovations that have been particularly salient over the WCEFA decade, though many of these same issues have been present during the preceding decades. The particular focus here is on the knowledge base that is currently available as well as the gaps that need to be filled in order for the field to make substantial progress in the coming decade and beyond. The 'bottom line' of this study is that the overlapping fields of literacy and adult education can and must do much better in the future, but will require not only more fiscal resources, but professional expertise (including teachers, specialists, programme directors, and policy makers) as well.

1.1 The Jomtien challenge

The 1990 World Conference on Education for All (WCEFA) in Jomtien, Thailand included adult literacy as one of its six major worldwide goals. Specifically, a number of national educational goals related to youth and adult education were agreed upon, including: (1) to reduce the number of adult illiterates to half of the 1990 level by the year 2000, while reducing the male-female disparity; and (2) to improve learning achievement to an agreed percentage of an appropriate age cohort (which might vary from country to country). As part of all Jomtien goals, a new approach to learning was emphasized, one that focused on measurable learning achievement (rather than mere class attendance or participation). These challenges, then, have formed the basis for much of the international renewed interest in literacy and adult education over the past decade, and, in may ways, remain the continuing Jomtien challenge for the first quarter of the new millennium.

Jomtien was not alone. Concern about illiteracy has been a focus of human activity in many parts of the world for centuries. As part of the creation of UNESCO after WWII, literacy was chosen as a key part of its mandate, and one that has been adopted by nearly all the international and bilateral agencies over the decades that followed. Focused international conferences on literacy also show its importance prior to Jomtien, such as Persepolis (1976) and Udaipur (1982); and following Jomtien, the Mid-Decade EFA Review (Amman, 1996), World Conference on Literacy (Philadelphia, 1996), and the International Conference on Adult Education (CONFINTEA V, Hamburg, 1997). In addition to this list, there were a myriad of other meetings, symposia and conferences on literacy and adult education stimulated by Jomtien.

With respect to the goal of improving learning achievement, Article 1 of the WCEFA Declaration stated that "basic learning needs" or competencies (BLCs), "comprise both essential learning tools (such as literacy, oral expression, numeracy and problem solving) and the basic learning content (such as knowledge, skills, values, and attitudes) required by human beings..." (UNESCO, 1990, p. 43). This second goal of relevance to literacy and adult education appears to have received somewhat less attention in the literacy and adult education arena, for the obvious reason that broadening the range of content in literacy programmes, especially in LDCs, was a major challenge in itself (for a review, see ILI/UNESCO, 1999).

Overall, the Jomtien challenge, combined with increasing pressures on national governments to be concerned about global competitiveness and workforce skills, has stimulated a renewed involvement in literacy and basic education in virtually all countries of the world. While the literacy targets were not generally met, it is probably correct to say that there is greater interest in trying to meet them today, in the year 2000, than ever before.

1.2 Historical and social context

Literacy is a word that is usually associated with the more positive aspects of human civilization, and is strongly associated with some of the most positive aspects of social and economic development. Indeed, the label of "illiterate" has been used and is today often used to characterize the poverty and lack of education still experienced in many parts of the world. Yet literacy also encompasses a wide variety of attitudes, beliefs, and power relations between individuals and groups of individuals. Thus, literacy itself is at the heart of the changes that have taken place across literate human history. Whether in the domain of religious tradition, the invention of the printing press, or the Internet, literacy has been central to many of our most profound human and historical developments.

In this report, literacy and adult education are terms that, together, are meant to refer to "second chance basic education" carried out among youth and adults. By "second chance", we are referring to educational activities that are meant for those individuals who never attended school (i.e., who missed schooling the "first time" when they were younger), or who left school before completing the acquisition of skills such as literacy and numeracy (see definitions below). Thus, adult education in this paper is not meant to include the myriad programmes of lifelong learning for adults (as important as they are), but rather a focus on the most disadvantaged who do not possess basic skills and are thus in need of basic education in non-formal (as different from formal) schooling. Further, the paper's focus is more on "less developed countries" (LDCs) – meant here in the standard sense of the bottom half of the list of countries in terms of per capita GNP. These countries have consistently had the highest rates of illiteracy since World War II.

A focus on "disadvantaged" out-of-school youth and adults – those who have had limited or no opportunities to access or benefit from sustained learning in formal school settings, also will lead to discussions of gender, social, economic, geographical, ethnic and political factors in development. This target group may or may not be wage earners or effective participants in other economic or community activities, but their basic or functional literacy, numeracy, and problem-solving skills, as well as "life skills" (related to managing personal health, nutrition, and workplace contexts; see World Health Organization, 1999) are likely to be lower than desired by national policy makers and/or what is needed to assure economic survival.

Finally, though the focus in the paper is on LDCs, there are numerous commonalities in literacy and adult education needs between developing and industrialized countries, indeed amongst all countries. As will be described below, major international surveys (such as recently in OECD countries) have demonstrated that virtually every country, even those with very high GNP, have significant portion of its population whose basic skills are too low. Thus, literacy may be seen today as a worldwide problem, even though the needs and levels of skills may vary widely from country to country.

1.3 Rationales for literacy and development

Human development rationale. Literacy is often understood as something that is "good" for the individual and for society. Indeed, unlike some other advocacy domains for social change (such as full employment and universal health insurance), there are very few critics of greater societal literacy. This is not to say that specialists or the public can agree as to what they mean by increased literacy. Note, for example, the heated debates over whether literacy should be taught in the mother-tongue or a second (usually metropolitan) language – still controversial in many countries (see below). Although primary education is already a core institutionalized goal of all nations, investments in non-formal and adult literacy education programmes tend to vary widely between countries.

Economic rationale. From the poorest villages in Africa to the city boulevards of industrialized Europe, one can hear the important economic rationale for literacy development. Few countries are oblivious to the perception that a literate and skilled populace can have an important impact on the social and economic life of each nation. Numerous claims have been put forward that a given minimum rate of literacy is a prerequisite for economic growth in developing countries, and we can read headlines in European newspapers today which proclaim that, in the context of global competition, adult illiteracy will lead to economic ruination. Indeed, estimates of the direct cost of adult illiteracy to North American business has been estimated at about US$40 billion annually. From the advent of the Experimental World Literacy Programme in the 1960s (Gillette, 1999), and to the 1990 WCEFA, claims have been made as to the positive impact on economic productivity of literacy and basic education. Most of the empirical research on this topic comes from a handful of studies that relate number of years of schooling (mostly primary schooling) with income or job productivity. For example, in the agricultural sector, studies have been undertaken which support the notion that an additional year of primary schooling can directly affect wages and farm output (Jamison & Moock, 1984).

Until quite recently, there was very little information available on the economic returns to literacy among adults. Indeed, there are very few empirical studies on the economic impact of short-term literacy programmes in developing or industrialized countries. However, a new set of household literacy surveys (where literacy skills are measured and quantified) has begun to fill this gap in information (OECD/Statistics Canada, 1995; Tuijnman et al., 1997). These studies suggest that income and job attainment are strongly related to literacy skills, but there is little empirical research as yet to show that adult literacy programmes directly enable the unemployed to obtain new jobs. Furthermore, in developing countries, the direct impact of adult literacy programmes on individual economic improvements in the lives of programme participants remains to be systematically studied (Windham, 1999).

Social rationale. Literacy may also have social consequences that are important objectives for national policy planning. Particularly in developing countries, the gender dimension of illiteracy has been raised in this regard, as the majority of illiterate or low literate adults tend to be

female in the poorest developing nations (Stromquist, 1999). Furthermore, there are numerous empirical relationships between literacy and fertility, infant mortality, and so forth (see below), and we are just beginning to understand the complexity of the relationship between mother's education and consequences for children (LeVine, 1999), especially in reducing health risks and lowering fertility. Generally speaking, the research evidence for social consequences of literacy appears stronger (at least in terms of more demonstrable empirical outcomes) than that of direct economic consequences.

Political rationale. There is a long tradition of utilizing literacy programmes in general, and literacy campaigns in particular, as a way to achieve political goals (Bhola, 1999). In the 1500s, Sweden engaged in one of the earliest known national literacy campaigns in order to spread the state religion through Bible study. The apparent goal was not only religious salvation (as in previous and contemporary missionary work), but also national solidarity. This latter aspect of campaigns remains a potent source of government support of literacy work in many countries. Perhaps most visible are the socialist literacy efforts in the former USSR, China, Cuba, Nicaragua and Ethiopia; yet, the political appeal of literacy as a policy goal is also apparent in today's resurgence of literacy work in North America and Europe as well as in parts of Asia and Africa (Arnove & Graff, 1987). This type of political appeal often stems from a government's need to show that it is doing something good for the most disenfranchised communities of the country, while often justifying the investment in terms of lower social welfare costs and greater economic productivity. Political solidarity can also be achieved through the utilization of a national language in the literacy campaign. While tensions may result from the imposition of a national language on ethnic minorities, the promotion of national languages is seen as a positive outcome by many governments.

Endogenous rationale. There may be, of course, strong pressures to provide literacy and basic skills programmes at the community level. Often organized by NGOs, such as church or mosque groups or private voluntary organizations, such programmes tend to be small-scale and focused on particular segments of the population (e.g., adolescents out of school, young mothers, the elderly, the homeless, and so forth). In the case of endogenous programmes, governments generally have had little involvement, as the programmes are self-funded via religious associations and tend to rely on volunteer tutors and teachers. Recent exceptions to this model include the support of NGOs by multilateral agencies seeking to support literacy work. The historical rationale for such endogenous community-based literacy programmes may be seen in terms of both moral and social cohesion, in the sense of providing and reinforcing a sense of community. These types of endogenous literacy programmes have predominated in industrialized countries, where governments have until recently claimed that illiteracy was so marginal as to command little national attention or government financial support. Over the past decade, however, policymakers' attitudes in both industrialized and developing countries have changed sharply on this point, with many realizing that community-based programmes, funneled through NGOs, may be more effective than government run programmes.

Exogenous rationale. Since the establishment of United Nations agencies following World War II, there has been growing pressure on all nations to improve their performance in education and literacy, due to what might be called exogenous or external pressures. This pressure appears in two major ways. First, bilateral, regional and multinational agencies may offer financial support only if certain types of educational initiatives are promoted, and educational targets reached. Over the past decade or so, the promotion of primary schooling has been a centerpiece of multinational education support to LDCs, although interest in adult literacy has been growing again, based upon recipient country demand following the WCEFA meeting in 1990 (Eisemon et al., 1999).

STATUS AND TRENDS

Many countries have been actively striving to meet Jomtien's major goal of meeting the basic learning needs for all children, youth and adults, as well as the conjoint necessity for an adequate methodology for understanding whether such goals are being met. Current national and international capacities remain limited, however, for a variety of historical reasons. In the literacy domain, there is a long tradition of statistics gathering, but due to changing definitions of literacy, as well as a dearth of human capacity in the educational measurement field, the data on, and definitions of, literacy have long been open to question and debate.

1.4 Concepts and definitions

There are many definitions for literacy. All relate in some way, at their core, to an individual's ability to understand printed text and to communicate through print. Most contemporary definitions portray literacy in relative rather than absolute terms. They assume that there is no single level of skill or knowledge that qualifies a person as "literate," but rather that there are multiple levels and kinds of literacy (e.g., numeracy, technological literacy). In order to have bearing on real life situations, definitions of literacy must be sensitive to skills needed in *out-of-school* contexts, as well as to school-based competency requirements.

Two of the better known definitions of literacy are:

> "A person is literate who can with understanding both read and write a short simple statement on his everyday life...A person is functionally literate who can engage in all those activities in which literacy is required for effective functioning of his group and community..." (UNESCO, 1978)

> "Using printed and written information to function in society to achieve one's goals and to develop one's knowledge and potential." (OECD/Statistics Canada, 1995)

Most definitions of literacy have traditionally included calculating skills as part of the broad definition of literacy, but often these have been limited primarily to the four arithmetic operations. It is now widely thought that *numeracy* assessment should encompass a broad range

of skills, thought processes, and background knowledge (formal and /or informal). Numeracy enables interpreting, acting upon and communicating about mathematical information in a wide range of everyday or work-related and other life contexts, and is needed as well for effective functioning in a world of amounts, prices, weights, distances, and so forth. Thus, literacy and numeracy are now considered to be at the center of the educational goals not only of children in school, but youth and adults in need of further education.

The question of literacy definitions has both conceptual and practical dimensions (Venezky et al., 1990). Historically, and especially before World War II, it was possible to make an arbitrary distinction between those who had been to school and those who had not; this was especially obvious in the newly independent countries of the developing world, which were just beginning to provide public schooling to more than a relatively small elite. As the 21st century begins, this situation has changed dramatically. While there are still millions of adults who have never attended school, in even the poorest countries of the world, the majority of the population in the two youngest generations (up to about age 40 years) has attended some school. While this leaves open the serious question of the level of literacy of this often minimally –schooled population, it nonetheless points to a world with a much more variegated landscape of literacy skills, levels of achievement, and degree of regular use.

Jomtien influenced the definitional aspect of the literacy goal by broadening the discussion to that of basic learning needs or competencies (BLCs), which are seen not only in terms of mastery of the 3 Rs, but also in terms of other knowledge, problem-solving and life skills. Together, BLCs are thought to promote empowerment and access to a rapidly changing world. They should support independent functioning and coping with practical problems or choices as a parent or worker or citizen, and are seen as critical gatekeepers to job entry and societal advancement in all countries. Thus, when defining BLCs, there is a need to refer both to formal school-based skills (such as ability to read prose text or to understand mathematical notations) and also the ability to manage functional tasks and demands, regardless of whether such competencies were developed through formal or non-formal education, or through personal experiences in diverse informal learning situations. The challenge of changing definitions is not a trivial one, and will influence not only how policy makers view literacy goals, but also how programme developers will seek to promote literacy and adult education in the 21st century.

While the primary focus of this paper is on adult education in developing countries and for the most disadvantaged, it is important to take note of the important advances that have been made in adult education, some of which were highlighted at CONFINTEA-V, the Fifth International Conference on Adult Education (Hamburg), at which the following definition was provided: "The objectives of youth and adult education … are to develop the autonomy and the sense of responsibility of people and communities, to reinforce the capacity to deal with the transformations taking place in the economy, in culture and in society…, in short to enable people and communities to take control of their destiny and society…." (UIE, 1997). As can be seen, this definition of adult education takes a worldwide perspective, and helps to provide a

framework for much of the activities that agencies and governments will support in the coming years.

1.5 The changing nature of literacy assessment

Since the 1950s, there have been relatively few changes in the reporting of literacy statistics by UNESCO, which began to provide standardized information to other agencies for the purpose of international comparisons. The methodology for gathering such data appears simple enough, but contains a certain number of assumptions which call into question the reliability and validity of the data as currently collected. Literacy rates in each country are most often derived in one of two ways: either the national government provides these 'rates' as a function of some census information (often outdated by as much as one or two decades), where individuals are asked if they are or are not 'literate'; or, primary school completion rates are used as a way to calculate presumed 'literates' that are 15 or 16 years and older. These data often require a certain amount of adjustment due to population growth, changes in national methods of calculation, and national changes in language policy.

Such literacy data suffer from some serious flaws, compounded often by the lack of up-to-date census information. Most importantly, the traditional classification of individuals as "literate" versus "illiterate" is now of relatively little value, though it remains a form of classification much in use today. The situation in the year 2000 is much more complex, as some contact is now made with primary schooling, non-formal education programmes, and the mass-media by the vast majority of families in developing countries. Indeed, it is the rare society today that includes more than a small number of individuals who, for a variety of idiosyncratic reasons are unaware of the meaning and uses of reading and writing systems (Wagner, 1990; ILI/UNESCO, 1998). There also exist enormous within-country differences, as schooling and literacy may vary dramatically by gender, ethnicity, and urban and rural residence.

Literacy is more usefully seen as a set of individual skills, but these skills may be thought to be sufficient or insufficient, depending on the social, cultural and political context of any given society. Thus, being able to read a newspaper may justify the label of "literate" in one context, but in a second context may be a less relevant measure than a mother's ability to fill in a government health form for her sick child. Access to credible data about the status of BLCs can offer policy makers and planners several advantages, and enable them to:

- Judge the current status of basic skills within the out-of-school youth and adult populations, irrespective of former school attendance (for example, see a recent study on the impact of schooling on literacy skills, see Box 1);
- Identify skills deficiencies among out-of-school youths and young adults (or subgroups within these populations) which have economic or societal implications and that can serve as targets for interventions;

- Know more about the relative effectiveness of existing formal and non-formal programmes; and
- Make further progress towards meeting the 1990 Jomtien goal of reducing illiteracy by 50%.

Box 1. Bangladesh: Assessing Basic Learning Skills

Rates of illiteracy in Bangladesh have been consistently high, some 62% overall and 74% of the female population; Bangladesh remains the nation with the fourth highest number of illiterates in the world. To assess literacy levels in Bangladesh, researchers needed to develop instruments to measure whether or not a person had achieved the essential basic learning skills considered necessary for him or her to function at a minimum level of competence in Bengali society. These basic skills could be described as the minimum level required for self-sustained development. A test of basic learning skills was developed, for reading, writing, and oral and written mathematics for an assessment of a national sample of over 5000 individuals age 11 years and older living in rural areas. The highest level in each subject area was judged by a panel to be the *minimum* required to, for example, allow people to function in the market place, read passages of simple text independently and write very brief messages. Satisfactory internal consistency measures of reliability were obtained for the items on each subject level. In addition, data indicated substantial agreement between the objective ratings and self-assessments. A total of 29% of the tested sample indicated that they could read, and 24% that they could write a letter. However, almost 30% of the sample failed to master any of the levels the four subject areas tested. While evidence showed that basic learning skills and formal schooling were related, 36% had dropped out by the end of grade 3, at which point the majority had not mastered the basic skills in any of the four subjects tested. Indeed, those who had completed only 3 years of primary school showed levels of basic skills which were only marginally better than those who had never attended school in Bangladesh. Adapted from Greaney et al. (1999).

In measuring learning achievement, there are a range of studies – national and international – that have focused on reading, math, science, and so forth, both in school and out. For example, the IEA (International Association for the Evaluation of Educational Achievement) undertook a number of important international comparative studies of learning achievement, such as the 1992 Reading/Literacy study (Elley, 1992) of 9 and 14 year olds in 32 countries (including a number of LDCs such as Zimbabwe, Nigeria and Botswana), and the 1996 international Math/Science study (TIMSS) of 4th and 8th grade students in 26 countries (including LDCs such as Thailand, Iran). And the 1995 International Adult Literacy Survey (IALS) study, in 6 OECD countries, measured out-of-school reading, writing and math skills in adults aged 16-65 years (OECD/Statistics Canada, 1995, 1997). Each of these studies contained somewhat parallel methodologies for the measurement of learning achievement, such as the use of item sampling pools, translation/back-translation methods, and psychometric validation for item rejection.

While there is legitimate interest (and sometime significant amounts of funding) for such international comparative studies, there has been less interest (and less funding) for efforts to measure basic learning achievement at the programme level. This observation appears particularly obvious in LDCs, where NGO-based programmes rarely have the capacity to engage in empirically sound self-evaluation, and where international agencies infrequently have the resources (human or fiscal) to invest in evaluations that include learning achievement (there are some well-known exceptions to this generalization, such as BRAC in Bangladesh or TOSTAN in Senegal). With a risk of possible oversimplification, it seems fair to say that many (if not most) of the innovative educational programmes sponsored by development agencies in collaboration with governmental or non-governmental agencies, seldom have the benefit of formative or summative evaluations which include learning achievement; nor, with few exceptions, have such

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programmes invested in local capacity building (for a more detailed discussion, see ILI/UNESCO, 1998).

While UNESCO (1978) includes "reading, writing and calculation" in its definition of functional literacy, international agency data has typically been gathered only on reading and writing. Indeed, separate indices on numeracy rates for UN member nations have never been provided, and very little attention has been paid to the arithmetic part of the definition by international organizations and development planners (see Gal, 1993). Survey information has rarely been gathered on mathematical abilities in Third World countries, and the few literacy evaluations that have taken place which include separate analyses for numeracy generally provide insufficient detail for judging specific numeracy abilities.

In the area of learning achievement of BLCs, some new trends are discernable. A low-cost, culturally sensitive assessment framework that combine elements of household surveys (e.g., using moderately sized samples) with the use of measurement tools that are attuned to local and national needs has recently been development (see ILI/UNESCO, 1999; see Box 2). While maintaining a low level of operational and human resources costs, such assessment designs can satisfy the needs of international and national agencies for credible data as a pre-condition for supporting or investing in new human development initiatives. Further, these data can be also used to provide impact or evaluation data about national and local programmes that teach basic skills.

Box 2. Low Cost Methods of Literacy Assessment

Literacy tests have ranged traditionally from simple questions such as 'can you read and write,' to signing one's name, to reading a short paragraph on a life-relevant topic, to answering multiple-choice questions on a test battery. The proposed assessment scheme for reading is based on a matrix of reading skills and domains of print. This matrix can be used to define four ability levels: none, prerequisite, basic, and advanced. Reading skills, in this scheme are divided into three general categories: decoding, comprehension, applied skills. Three domains of print are described, including (1) prose text (e.g., newspapers, pamphlet, books, stories, etc.); (2) documents (e.g., official forms, labels, advertisements, bills, receipts, etc.); and (3) decontextualized print (e.g., letters, words, phrases, and sentences). Levels of reading may be defined as follows:

None or non-reader level. This level refers to those individuals who, for all practical purposes, do not possess even the rudiments of reading skills, and cannot, for example, recognize more than a few letters of the alphabet at most.

Prerequisite level. Prerequisites to reading competency include letter recognition, decoding, and "sounding out" of short texts. In some languages, such as English or Arabic, the relation of printed text to oral language is not at all simple and may require extensive knowledge of the linguistic, semantic, and grammatical structure of the language just to pronounce a printed text. Thus, decoding skill must be operationalized with respect to specific language and script contexts.

Basic level. A basic level in reading ability can be defined as skill in "reading to learn" and "reading to do." The former set of skills may be seen as most related to school-based reading achievement, where the focus is on reading comprehension as a means for learning about content domains. The latter set of skills are more common to out-of-school functional literacy needs such as reading signs, following procedural directions, locating a specific item on a bus schedule, and other applied tasks.

Advanced level. Advanced skills are built on those used in basic level tasks, but are applied to more complex tasks and print domains. As noted earlier, advanced skills are equivalent to a level of skill for those who have successfully completed secondary school curriculum or its equivalent. Adapted from ILI/UNESCO (1999).

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1.6 Statistical trends in literacy worldwide

Literacy and illiteracy, when considered in statistical terms, can provide useful comparisons by region, country, gender, and so forth, over time. The analysis of illiteracy rates by country and region is helpful for identifying populations most in need, and for recognizing regional trends and disparities.

Tables 1 and **2** present primary school and adult literacy statistics for world's adult population, with developing countries categorized by region and country. **Figure 1** presents a graphical view of illiteracy rates by region. According to UNESCO (1997b), there were an estimated 962 million illiterates in the world in 1990, 885 million in 1995, and an estimated 887 million in 2000, constituting 27% of the adult population in the developing countries. Of these illiterates, the majority are women, in some countries accounting for up to two-thirds of adult illiteracy. Regionally, Eastern and Southern Asia have the highest number of illiterates, with an estimated 71% of the world's total illiterate population. The Sub-Saharan Africa and Arab regions have about the same (40%) adult illiteracy rate, with Latin America at about half this rate. Overall, the geographic distribution of adult illiterates has not changed very much over the Jomtien decade (or over the past several decades).

As shown in **Figure 2**, statistics indicate that illiterate adults in industrialized (developed) countries make up a small fraction of the adult population. In 1980, the estimated illiteracy rate for industrialized countries was 3%, and declined to 1% by 1997. However, utilizing such aggregate figures can be misleading in two ways. First, there are parts of Southern Europe, for example in Portugal, where the illiteracy rate in 1990 was estimated to be as high as 15%, which is about the same as the rate for the region of Latin America and the Caribbean as a whole, and higher than several individual countries in that region. Second, and more importantly, the standards used by UNESCO for developing countries are no longer considered appropriate for industrialized countries, which have (as noted earlier) developed their own measures for assessing functional literacy problems (see OECD/Statistics Canada, 1995; ILI/UNESCO, 1998). Thus, comparisons of illiteracy rates in developing and industrialized countries can be misleading, since definitions of literacy and illiteracy now vary widely. One consequence of these changes in standards is that literacy (illiteracy and low-literacy) have seen a greatly increased policy interest in OECD countries as well as in developing countries over the WCEFA decade.

1.7 Gender differences

One of the most salient factors affecting literacy rates worldwide is that of the gender disparity. Of the almost one billion illiterates currently in the world, the large majority are women. **Figure 3** shows trends in illiteracy rates by gender and by region from 1980 to 1995. Although there are large variations by region, illiteracy rates invariably are higher for women than

for men in developing countries. A summary of gender gaps for 87 countries published by UNESCO (1990) found that: (1) in 36 countries, all of them in Africa or Asia, the difference between male and female literacy rates is over 20%; (2) in 26 countries, nearly all of them in Africa and Asia, the male-female difference is between 10% and 20%; and (3) in 25 countries, most of which are in Latin America and the Caribbean, the disparity is less than 10%.

Unfortunately, the gender gap in illiteracy rates has only declined only moderately in recent decades, though some regions (Eastern Asia/Oceania) seem to have made major gains. In some countries improvements due to increased primary school access for girls have been noted, while in other countries differential completion of primary schooling favors boys, hence maintaining or increasing the gender gap in literacy for adolescent girls. If educational access trends do not change dramatically in the coming decades, it is estimated that male/female parity in literacy will be not be reached for over a century.

Box 3. Gender Trends of Illiteracy in Morocco

In Morocco, a direct literacy assessment module was designed and integrated into the National Survey on Household Living Standards, sponsored by the World Bank. The main objectives of this survey were to examine in greater detail the range and variability of literacy skills and knowledge among individuals, and especially among women. The literacy survey consisted of nine sections, including self-report questions on literacy skills and behaviors, questions on basic healthcare behaviors, assessment of information location skills, mental and written numeracy assessments, and assessments of reading and writing in Arabic. A national stratified sample of 2240 participants received the survey. The most significant finding was that Morocco has cut its illiteracy rate by one-half during the past three decades, and the trend is one of continuing improvement. However, the disparities in literacy attainment between men and women (as well as between urban and rural populations) remain a major issue. Surprisingly, the gender gap in literacy among the present younger generation is even larger than that of their grand-parents or even parents. Whether this is the result of selective out-migration of literate individuals from the countryside to the towns, or of insufficient educational access and quality in rural areas, is a question with profound policy implications, and requires further investigation. It clearly shows that males have received more education than females during this time period. Results of the study suggest that part of the explanation for high levels of illiteracy in rural areas is the relative frequency of households in which both parents are illiterate, while in the urban areas men are more likely to marry a woman who has some literacy skills. The evidence indicates that completely-illiterate households are by far more likely to raise illiterate children, while maternal literacy positively affects both boys' and girls' enrollment and attainment. Adapted from: Lavy, et al. (1995).

1.8 Rural and urban differences

Table 3 shows illiteracy rates for urban and rural populations in 18 representative countries. In most of these countries, illiteracy rates in rural areas are more than twice as high as in urban areas. The importance of this statistic becomes even more obvious when one considers that in many of these countries the rural population is much higher than the urban population. These statistics have implications for literacy campaigns and adult literacy programmes, since the population density of illiterates can have a significant impact on choice of language, recruitment of literacy trainers, and concentration of effort. Furthermore, as a predominantly rural phenomenon in developing countries, the preponderance of urban educated teachers tends to maintain a cultural gulf which has continued for centuries.

It should be noted that illiteracy in industrialized countries may be following a rather different pattern. The low-literacy problem in countries like the United States, Canada and

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France is largely due to the presence of large numbers of minority populations that immigrated with little schooling and/or dropped out of school before attaining sufficient literacy skills. These minority populations have tended to become concentrated in large urban areas, thereby pushing urban illiteracy/low-literacy rates higher than in rural areas.

1.9 Other factors related to literacy

Literacy has often been seen as not only a 'good thing' in and of itself, but as also having a variety of by-products of great social and economic importance, such as improved health, lowered fertility, increased income, and so forth. Thus, over the years, international agencies and national governments have tracked other factors as they are related to literacy statistics. A brief synopsis follows:

Age. As shown in **Table 4**, the over-45 years-of-age group has the highest illiteracy rate in all regions (including OECD countries as well, but not shown in this table), which most likely can be attributed to the fewer years of schooling (or poorer quality of schooling) that this group received. The illiteracy rate for this older group is expected to remain high until well into the next quarter century, especially in Sub-Saharan Africa, the Arab States and Southern Asia. A second observation is that there has been a large decrease in the past 20 years in the illiteracy rate of those in the 15-19 and 20-24 age groups, which can be attributed, conversely, to the rise in access to schooling.

Schooling. As shown in **Table 2**, primary schooling and adult illiteracy are very highly correlated, in particular since most developing countries use the rate of primary schooling (as noted earlier) as a principal proxy variable for determining who is labeled as "literate." In addition, **Figure 4** shows that out-of-school youth, in spite of increases in the rate of school enrollments in LDCs, continues to be high, and is growing rather dramatically in Africa. Overall, even though enrollments have gone up in many developing countries, the real impact on literacy achievement remains unknown for the most part, since surveys of learning achievement following schooling have rarely been undertaken.

Health. As shown in **Figure 5**, life expectancy and literacy are highly correlated overall, so much so that those countries with the lowest literacy rates actually have a life expectancy of only half of those that live in the most literate developing countries! Furthermore, given the common recognition of the key roles that women play in fertility planning, infant care/nutrition, and the health education, it is not surprising that female illiteracy is seen as a major obstacle to health and social development. As shown in **Figures 6** and **7**, women's literacy rates are also correlated with declining fertility rates and declining child mortality rates in LDCs. It should be recalled, however, that even though the cross-national correlations between female literacy and health indicators are often statistically significant, there is remarkably little evidence which shows that there is a causal relationship between these variables. Recent evidence indicates that both

formal schooling and literacy may have independent effects on the health and fertility outcomes of women, but the requisite longitudinal studies have yet to be carried out (LeVine et al., 2000).

Economic well-being. There is a widespread belief that literacy and economic well-being (at the individual and national level) go hand in hand. One way to evaluate this assertion is to plot GNP per capita against adult literacy rates in developing countries (see **Figure 6**). Also, nearly two decades ago the World Bank sponsored a series of studies to show the impact of literacy and schooling on agricultural productivity (Jamison & Moock, 1984). More recently, in industrialized countries, literacy levels have been shown to be one of the strongest predictors of individual income (OECD/Statistics Canada, 1995, 1997). These data are among those that are most often cited in terms of the importance of investments in literacy (although these correlational data suffer from the same non-causation issue cited in the health section above).

1.10 Accountability and impact

In addition to understanding literacy levels as a statistical phenomenon, there is an increasing need to be able to analyze the effectiveness of literacy and adult education programmes as they operate in a variety of settings on the ground. These efforts, commonly thought of as programme evaluation work, constitute an important element in our understanding of literacy and adult education, and how service provision can be improved and expanded.

As with programme evaluation work more generally, literacy and adult education programme evaluation would normally include formative (on-going) and summative (post-hoc) evaluations. Each of these might include a focus on planning and strategies for literacy work, programme implementation and management, student monitoring, attendance and retention, skill acquisition, integration with other agencies, and post-literacy activities. Serious work has been accomplished in some of these areas, mainly in terms of formative studies and post-hoc analyses of management; only in the latter part of the WCEFA decade has work in this area begun again (see, e.g., Burchfield, 1997; Carron et al. 1989; Easton, 1998, ILI/UNESCO, 1998; LeVine et al., 2000; Okech et al., 1999). With the expansion of interest in literacy worldwide, and with the push of the recommendations of the 1990 WCEFA, far greater attention will need to be paid to rigorous and in-depth evaluation of literacy and adult education programmes. Indeed, it may be that one of the key impediments to expanding public and government support for adult literacy programmes has been the failure of those who support adult literacy programmes to provide the type of reliable databases and impact evaluations typically utilized in other educational efforts.

DOMAINS OF INNOVATION

Innovations are central to future success in literacy and adult education, and learner motivation, once access is achieved, is a key dimension for any programmatic improvement. This is true whether one is in Bangladesh or in Bolivia. A major problem consistently mentioned by

service providers and policymakers is that participation levels drop off rapidly after the first weeks or months of programme participation. Many varied and valid reasons have been cited as causes of this problem, such as: inadequate programme quality; lack of time and resources of learners; poor quality of textbooks and pedagogy; lack of social marketing; and so forth. There is little doubt, however, that the general factor behind all of these technical issues is that learners, for whatever sets of reasons, do not feel motivated to participate and remain in such voluntary programmes.

If adult learners, as the adage goes, vote with their feet, how can service providers provide more incentives for them to stay in the programmes. We know that disincentives (such as government mandates, controls, punishments) are relatively ineffective for learning (and may have long term negative consequences as well). But it is not always clear to the learner, teacher, or policymaker why a learner should take time away from other important home and work activities to participate in a non-formal education programme. Indeed, this is a common perception given by adult learners when they quit a programme. It is not obvious, furthermore, what incentives ought to be. Since there are many different types of learners in many different life and cultural contexts, only further research on this question will enable programmes to better tailor their offerings to favor increased motivation and participation.

However, there are some areas where flexibility and choice, as in the marketplace, make considerable sense, such as choice of language for learning, choice of programme design (e.g., for farmers, mothers, workers), and choice of 'follow-on' programmes such as certificates for school entry for youth, job training for adults, and so forth. Tailoring programmes to better fit the learning consumer is a necessity for the future, and one that many national literacy programmes have yet to face directly and with the additional resources required. In the sections below, a number of domains are described where innovations are happening now, or will be required in the future.

1.11 Language policy and planning

Most countries have formulated an explicit language policy which states which language or languages have official status. The decision on national or official language(s) is usually based on such factors as major linguistic groups, colonial or post-colonial history, and the importance of a given language to the concerns of economic development. Official languages are also those commonly used in primary school, though there may be differences between languages used in beginning schooling and those used later on. The use of mother tongue instruction in adult education remains a topic of continuing debate, with mother tongue literacy favored by most experts until the early 1990s (Wagner, 1992). However, with the advance of primary schooling, there appears to be growing a diversity of views, especially among adult learners in many countries where access to the economic market place drives motivation for particular (often colonial) languages.

Box 4. Language Development for Literacy: The Shiyeyi in Botswana

Since independence, the government of Botswana has practiced an exclusive language policy, in which only English has been used in government circles, at the exclusion of all 26 languages represented in the country, with a limited use of the national language, Setswana. However, in recent years more positive statements have been made in Parliament regarding the use of other languages in education and society. Such statements have provided an environment conducive to NGOs developing other languages for use in public education and also out-of-school literacy programmes. One such organization is undertaking to revive the language and culture of the Shiyeyi-speaking people in north-western and central Botswana. By the 1990s, it was documented that most of these people, especially the young, did not speak Shiyeyi. Following some pioneering work by a South African linguist working with indigenous scholars, an organization was formed in 1995 called Kamanakao, "the remnants," to develop and maintain what remains of the Shiyeyi language and culture, as part of the overall national Setswana culture. The main strategy of Kamanakao Association has been to conduct participatory training and research workshops in villages throughout the Shiyeyi-speaking region. These workshops have been to collect data for developing the orthography, to record oral literature, and survey speakers on their attitudes towards Shiyeyi with regard to preferences for literacy. In the past, adult literacy materials written in Setswana, the national language, have been largely unsuccessful in non-Setswana-speaking communities; in addition, children in non-Setswana speaking areas have underachieved year after year. The Shiyeyi-speaking people recognized the considerable benefit that could be derived from mother-tongue literacy in their communities. Literacy classes in Shiyeyi were started in several rural areas, and other areas have been targeted for future classes for adults and youth. Adapted from Nyati-Ramahobo (1998).

In numerous developing countries, a significant proportion of students in primary school are either illiterate in their mother tongue or receive only a few years of mother tongue instruction before a second language is introduced as a medium of instruction. Poor second language literacy proficiency is a principal cause of high repetition and wastage rates, and of low achievement in academic subjects in primary and secondary schools, with profound consequences for employment and other externalities of schooling.

5. Vernacular "Bridge" Literacy in Egypt

The gap between the Arabic language of formal education and adult literacy (*fusha*) and the Arabic dialect or vernacular spoken at home, at the marketplace and most everywhere outside of school walls appears to be a major cause of low learning achievement rates in schools and low adult literacy in the Arab region. The important linguistic distance which separates *fusha* from the learners' personal experience, familiar topics, and concrete real world materials is a cause of serious pedagogical problems, leading to lack of adequate language competence and learner self-confidence, as well as poor quality of education, and high repetition and drop-out rates in formal and non-formal schooling. One method for improving this situation is the use of vernacular (or dialectal) Arabic as a "bridge" literacy. The use of vernacular Arabic in the early stages of Arabic literacy is aimed at giving early assistance to adult learners. It makes the learning of the decoding skills easier by connecting the letters of the Arabic script to known and more accessible relevant language patterns and forms. Some NGOs are successfully using vernacular adult literacy in Egypt to improve the learners' motivation and learning achievement. In the British-supported Egyptian Adult Literacy Training Project, *Aswatna* ("Our voices"), contains a selection of vernacular student writing with more than 100 pieces written by adult literacy students. Because it is the product of real-life experience, vernacular writing is now used to stimulate class discussions and promote an enhanced mobilization. Adapted from Maamouri (1998).

Because of the significant political aspects of first and second language policy, many donor agencies and developing country officials have been reluctant to review language policies as they affect literacy work. Nonetheless, there are a number of important areas of work which need to be addressed beyond the confines of the debate over "which language/literacy should come first." For example, more needs to be known about such issues as: (1) the use of 'bridge' dialects to facilitate the learning of standard language literacy (see Box 5); (2) how the implementation of language of instruction policies affects literacy after schooling; (3) the effects of using second language literacy in school on wastage and grade repetition; (4) the implications of using the

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second language literacy for academic subjects like mathematics, science, health, nutrition, and agriculture; (5) skill retention of mother tongue and second language literacy skills in daily life after leaving school; and (6) whether (or under what conditions) mother tongue literacy should be a precondition for the introduction of second language literacy in school-based and non-formal settings (see Box 6). These specific areas of inquiry are more tractable and less political than the mother tongue vs. second language debate, and they may be more relevant to improving the effectiveness of literacy programmes. Overall these issues fall within the broad context of the cultural appropriateness of literacy programmes, a matter that remains still much in contention (Street, 1999).

Box 6. "The Fire That Never Dies" – Guarani Literacy in Bolivia

For over a decade, the Guaranis have been undergoing a process of ethnic and cultural revival. This process began when some Guaranis who had received basic education became aware of the dramatic situation of their people, and in the late 1980s the *Proyecto de Educacion Intercultural Bilingue Guarani* was launched, beginning with bilingual education programmes to be offered in all the communities where small development projects operated. For these a Guarani reading primer, a mathematics primer, and a Spanish as a second language manual had been prepared. Beginning with 500 students in 22 primary schools, the programme grew to 3000 pupils in 40 schools by the mid-1990s. Subsequently, a literacy campaign was designed, with two complementary lines of action: one for absolute or functional illiterates, and another for those who although literate in Spanish were not able to read and write in Guarani. The literacy primers were organized under the general title *Tataendi* – "the fire that never dies" – because "in our homes the fire is always lit...The one hundred years that have passed since the Kuruyuki massacre (in 1892) have only been like ashes that have tried to kill the fire of our culture...Now it is our turn to keep and feed the *tata* [fire] our ancestors have left us. We want this *tataendi* to become a big fire capable of giving light and warmth to the whole Guarani people." Only weeks after the opening ceremony, training workshops were begun for literacy teachers, and in just the first four phases of the programme, over 12,000 adults learners were served. Through their involvement in the campaign, these literacy teachers discovered what it meant to be Guarani as well as how important it was to organize their campaign around their language and culture. The Guaranis' involvement in a successful bilingual education programme allowed them to see their native language and bilingual education as potential resources to construct a viable and different future. The Guaranis have provided a lesson on the importance of indigenous values and indigenous culture, as well as about how the direct involvement of a population can contribute to improving the quality of education and to promoting literacy among communities which had not before felt the need to read and write. Adapted from Lopez (1997).

1.12 Empowerment and community participation

The notion of empowerment through literacy has been a constant refrain since the inception of literacy campaigns (Arnove & Graff, 1987). As noted in the final declaration of CONFINTEA-V, "It is essential that approaches to adult learning be based on people's own heritage, culture, values and prior experiences and that the diverse ways in which these approaches are implemented enable and encourage every citizen to be actively involved and to have a voice." Clearly, empowerment is a centerpiece of adult education. Indeed, much of the rhetoric surrounding the importance of literacy utilizes the metaphors and imagery that connote empowering the individual against potential oppression, and there is a great amount of anecdotal evidence that empowerment can be a product of literacy learning (e.g., Box 7). Nonetheless, very few studies have adequately measured more than attitudes about empowerment, and it is difficult *a priori* to know how to measure this variable.

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Box 7. Teaching Nomads in India

The Rural Litigation and Entitlement Kendra's (RLEK) adult literacy programme, under the aegis of the National Literacy Mission, works with the tribal community of the forest dwelling nomadic Van Gujjars, who inhabit the forests of the Siwalik range of mountains. For centuries the community of the nomadic Van Gujjars has lived in these forests and the Himalayan highland pastures where they go during the summer months. They have developed a sustainable relationship with their environment and have become a part of its biodiversity; their lives revolve around tending their buffaloes and their milk products which dictates their nomadism. RLEK perceived the illiteracy of the Van Gujjars to be the root cause of their exploitation. To remedy the situation it started a unique and innovative adult literacy programme for them in the early 1990s. Copious illustrations were used in the RLEK primers and these also related to their physical background, thus constantly maintaining the transparency of the visual medium. To prevent recidivism the volunteer teachers trekked up and down with their pupils during their annual transhumance. They also stayed with them in the highland pastures. These two factors, the development of the primers and the involvement of the volunteer teachers, were the principal agents that led to the success of the adult literacy programme. This success was appraised through holding of 'saksharta melas' (literacy fairs) where the neo-literates came out from the forests in thousands to exhibit their newly developed skills "I was reluctant to join because I was afraid of the written word" told a young Van Gujjar mother in her local tongue to a journalist, "now no more". Adapted from Kaushal (1998).

On the other hand, there is a growing research base on community participation and the decentralization of management of literacy and adult education programmes. One recent report on non-formal education programmes in Africa provided considerable evidence on the impact of such programmes for innovation and sustainability (see Box 8). In addition, some agencies, such as the World Bank, have embarked on a major effort to support NGOs as the providers of service (as contrasted with national governments), in such countries as Ghana, Senegal and Morocco.

Box 8. Local Capacity Building in the Sahel

Decentralization movements in West Africa have created major new training needs at the local level – needs which the existing school system cannot meet on its own. Research conducted in 40 communities in Mali, Ghana, Burkina Faso, Senegal, and Niger, found remarkable examples of the assumption of new functions and responsibilities by grassroots actors. In Burkina Faso, for instance, local associations have undertaken literacy instruction in areas lacking primary schools; community organizations in other regions have supported local investment, dam- and road-building, and the establishment of maternal and child health centers. Overall, 26 of the 40 sites studied were financially self-supporting, 23 had taken over prime management responsibility for all their own operations, and 19 were affiliated with some broader and autonomous federation. The common fact among successful experiments in local-level assumption of development responsibility seems to lie in the close interweaving of training and the application of knowledge – and thus in the development of practical opportunities for individuals, collectivities, and associations to deploy and gain tangible benefits from their newly-acquired skills.The evidence indicates that the emergence of genuinely empowering local initiatives and the further development of this self-governance movement hinge on a process of local "capitalization" along five convergent dimensions: physical, financial, institutional, intellectual, and cultural – which are closely interrelated. Mastery of the technology of writing – whatever the written code used – appears to constitute a threshold of institutional development at the local level. There is a surprising variety of latent knowledge and skill in communities, resources which organizations need to build upon; and it is most often literacy and non-formal education programmes that serve to bring out this diverse human resource and to prepare it for its new responsibilities in the new social contract. Adapted from Easton (1998).

1.13 Learning, instruction and materials design

While adult education programmes have typically emphasized acquisition of basic literacy and numeracy skills, in recent years it has been recognized that these must be integrated with a variety of development objectives that enable learners to apply their skills in the lifelong learning

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process. Innovative methodologies are being devised which address "the social, cultural, and economic development aspirations of learners" (UNESCO Institute for Education, 1997).

While the traditional teacher-led classroom is still the norm in much of the world, particularly in developing countries, significant progress has been made toward addressing adults' multifaceted learning needs. In many instances authoritarian methodologies and skills-based curricula, emphasizing copying and memorization, have been replaced by a variety of student-centered approaches. Facilitators are trained to draw out learners' own knowledge and capitalize on their prior experience. In addition, some literacy classes offer opportunities for adults to learn how to incorporate traditional ways of knowing with basic education skills that will help lead them into fuller participation in the modern world. Programmes such as REFLECT (see Box 9) take a bottom-up approach to curriculum and materials design, requiring learner input from the very inception and allowing significant learner control over the direction and conduct of literacy classes. The success of such programmes in encouraging community activism and alleviation of poverty has generated interest in many countries throughout the developing world.

Box 9. Community Development in El Salvador

In late 1993, ActionAid (UK) began a two-year research project to explore possible uses of Participatory Rural Appraisal (PRA) techniques within adult literacy programmes. This led to the development of the REFLECT approach (Regenerated Freirean Literacy through Empowering Community Techniques), which seeks to build on the theoretical framework developed by Paolo Freire while providing a practical methodology. Notable features of the REFLECT approach include the absence of pre-printed materials such as textbooks or primers; instead each circle of learners develops its own literacy materials through construction of maps, matrices, calendars and diagrams which represent local realities and afford learners the opportunity to systematize their existing knowledge through detailed analysis of issues with immediate relevance to their lives. Learners implemented new soil management and planting techniques, adopted new methods of pesticide and fertilizer use, undertook ongoing study of local soils and construction of conservation structures. Also, learners commented on the value of the knowledge they had gained regarding recent peace agreements relating to land reform, because they could directly apply their knowledge not only to accessing land but also to applying newly-learned agricultural techniques to make it more productive. Discussions in the REFLECT "literacy circles" led directly to collective action at the community level and contributed to community participation in community organizations. Through group construction of a natural resource map, learners examined the local water problem, after which they organized to obtain funds for water tanks from a national NGO. There was a dramatic change in learners' involvement in community organizations, as several took up formal positions of responsibility in the local cooperative, credit committee, women's group, and education committee, all within a year of participating in the literacy programme. Adapted from Archer and Cottingham (1996).

Important linkages between ongoing literacy programmes and post-literacy have been made through the direct involvement of learners in the development of literacy materials relevant to current issues of, for example, health, agriculture, technology, or income-generation. Not only do learners have the opportunity to apply their basic skills while still under the guidance of facilitators in the programme, but they take leadership roles in strengthening the learning environment for themselves and their fellow citizens. Some programmes employing learners in writing materials in the mother tongues of historically marginalized people have also been instrumental in dramatic increases in ethnic pride, political solidarity, and citizen participation.

In countries undergoing major political and economic transformations, adult basic education and literacy programmes are increasingly called on to link the non-formal to the formal

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education sectors, through professional development, post-literacy, and work-related instruction. This linkage requires diversification of instructional content as well as methodology, and may incorporate new technologies (as described below). One important area that is in need of further innovation is that of improved concatenation in materials development and production between formal and non-formal education domains. For too long the formal and non-formal sectors have been producing materials that are of little use to either sector, when better coordination can have multiple benefits.

1.14 Gender and family

Of the areas in greatest need of innovation, there is none higher than that of literacy for women and within the family. This stems from the widely perceived need for greater literacy among women, and the reduction of the gender disparity discussed earlier. Some governments and agencies have made commitments to women's literacy programmes without fully understanding what would make a women's programme different from that of a male-oriented programme. One of the most obvious distinctions is that, in LDCs especially, women are most often found as caretakers with small children near by (whether the women are the biological parents or not). This simple demographic fact is widely known, but relatively few literacy and adult education planners have taken this dimension into account. One programme that has is MOCEF, which offers a mother-child literacy programme in Turkey (see Box 10).

Box 10. Mother-Child Literacy in Turkey

Developed from a 10-year research project by Bogazici University in Turkey, the MOCEF Mother-Child Education Programme functions as a home-based intervention project aiming to provide early enrichment to young children and literacy education for their mothers. Such a multipurpose programme assists in motivating learners to participate and incorporate learning objectives into everyday life. The MOCEF target group is mothers of 6-year-olds, who meet for 25 weeks, approximately three hours per week, beginning with group discussions on child development, health, nutrition, and creative play activities, continuing with classes focusing on discipline, parent-child interaction, and expressing feelings. MOCEF's educational programme for women living in low-income areas of Turkey has graduated some 9000 former illiterates since 1995. It is based on an innovative curriculum based on the life of an illiterate woman living in a large city in Turkey. Recent studies comparing the effectiveness of this innovative curriculum to the traditional or "classic" courses offered by the Ministry of Education show substantial advantages for the MOCEF participants. Researchers attribute the programme's success to the sensitivity of instructors and materials designers to the needs of the women in the programme. This has led to an integrated curriculum design incorporating not only basic decoding but also word-recognition and immediate, functional application of literacy skills, as well as exercises emphasizing comprehension of text and critical thinking. Adapted from: Goksal (1999).

As noted earlier, literacy (and illiteracy) are embedded within cultural situations. For a "women's literacy" programme to be effective, it is essential to understand the aspects of women's lives that might be affected by literacy and adult education programmes, as well as the consequences of those programmes. Understanding these complex dimensions, while taking into account social and political realities, has posed many problems over the years. Nonetheless, the past decade has seen a number of useful examples of women's literacy programmes (see Box 11, for example).

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Box 11. Promoting Women's Literacy in Nepal

Women have traditionally had a very low rate of literacy in Nepal, one of the world's poorest countries. Literacy levels for adult women had risen from about 12% in 1981 to about 22% in 1990 and 28% in 1996, still considerably below the 35% reported for adult men. The Women's Empowerment Programme, though basic literacy, legal literacy, and economic participation activities, was designed to increase women's literacy, improve the legal environment for females, and encourage women's economic participation in the market economy. Eight international partner organizations carried out one or more of these programmes through Nepalese NGOs in 28 districts of the country. The programmes were based on the notion that women's education and empowerment enables them to become effective agents of change in their households and communities, which in turn enhances the well-being of their families and society at large. It was found that women who had participated in the programmes reported an increase in self-confidence and greater autonomy within their daily lives, and that those who had participated showed greater involvement in the care of children, reproductive management, and how family income is spent (76% of women surveyed reported using income to alleviate economic hardship in their households). Increases were found in women's involvement in collective community activities and social issues. Participants surveyed 10 years after taking the literacy classes were found to be still engaged in social actions and income-generating activities, even more than those who had only recently begun attending literacy classes. Adapted from USAID (1998).

1.15 Multi-sectoral issues of health, agriculture and commerce

Literacy and numeracy skills are utilized in many life contexts even though most BLC instruction takes place in organized instructional settings. A major challenge rests in determining the ways that literacy can be fostered and utilized in everyday work settings. From a policy perspective, more needs to be known about how literacy education can be infused into the significant development work of other sectors, such as health education and agricultural extension.

For example, there is growing support for use of the idea of a comprehensive "service center" to provide basic educational training to other sectors' workers. Relatively few examples of this approach have been attempted, and little is known about their potential impact. In the health sector, literacy and health information (especially as a result of the HIV/AIDS epidemic) have been increasingly put together (see Box 12).

Box 12. Women, Health and Literacy Education in Senegal

The TOSTAN Basic Education Programme in Senegal was developed by a team of villagers and non-formal education specialists to improve the educational situation of villagers, particularly women. Its goals are not only to reduce illiteracy, but also to help the population achieve health and self-development through the use of adapted educational materials. TOSTAN means "breakthrough" in Wolof, the language spoken by approximately 70% of the Senegalese people. In addition to providing rural people with the opportunity to obtain basic education in their own language, the two-year programme also integrates elements of traditional culture into the curriculum and promotes community ownership and problem-solving to improve living conditions in the villages. The programme includes a module on the use of Oral Rehydration Solution (ORS), which prevents the dehydration caused by diarrhea, a frequent cause of death among young children in Senegal. The steps to mix and administer the ORS are taught using diverse active learning techniques, including charting and demonstrating the method, and playing a card game to help participants understand the elements for making the solution as well as the negative practices that can lead to diarrhea and dehydration. The facilitator also engages the learners in discussion about these issues, which constitute a problem they deal with often in their everyday lives. As a result of these teaching methods, learners plan strategies based on what they have learned in the programme that will improve their communities' health conditions. Adapted from: TOSTAN (1996).

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1.16 Post-literacy and income-generation

Many countries with longstanding literacy programs (e.g. India) are now increasingly concerned with the "what comes next" issue, after elementary basic skills are taught. Often called the "post-literacy" aspect of adult education, this question follows directly on the earlier discussion of changing standards of literacy for changing societies. One way to deal with this issue is to try to work out a set of skills standards for the formal and non-formal sectors, as has been in process in South Africa (Box 13).

Box 13. Adult Basic Education and Training in South Africa.

In the new South Africa adult literacy work is conceptualized as "basic skills" or "generic skills" training and is seen as the starting point of a programme of Adult Basic Education and Training which is meant to have equivalence to the ten years of formal schooling to which children are now entitled. Learners currently in classes are encouraged to write national exams in accordance with the levels, standards and outcomes specified by the National Qualifications Framework (NQF). However, recent research in South Africa has shown that unschooled people do not necessarily see themselves as "illiterate", even if they have not been to school. Many poorly schooled South Africans attach value to their own "common-sense" or "practical" ways of accomplishing a range of activities in their lives, and they often see their own procedures and skills as being more direct and reliable than "school knowledge". Similarly, it is apparent that literacy is a significant part of the activities of many people who have not been formally taught to read and write. There is evidence both in South Africa and elsewhere that unschooled workers develop complex task-related skills over time that allow them to operate with efficiency, including in such literacy-linked activities as making judgments in relation to volume, quantity and cost, for example, and in interpreting diagrams that include literacy. Thus, a focus on the conventional transmission of standard literacy in adult classrooms is bound to lag further and further behind the complexity of social forms of communication as they develop within communities undergoing dramatic change. The message of such a perspective is clear: alternatives to centrally designed programmes will help to encourage the diversity of meanings which adults create from texts and situations in a post-literacy environment. Adapted from Prinsloo and Breier (1996).

Similarly, the post-literacy question is also tied with income generation. This is not just the case in policy makers' minds, but also in the minds of many adult learners. After all, why should they take valuable time away from other activities for a literacy programme if it is not going to lead to some tangible benefit. Increasingly, literacy and adult education planners are no longer content to restrict programming to instructional content, but are further trying to see how instruction can lead to concrete benefits for the learners (see, for example, Box 14).

Box 14. Income Generation in Laos

After years of war and isolation, the Lao People's Democratic Republic is undergoing widespread economic and political reforms, in the process of opening up to the outside world. In the countryside, however, the rural poor and especially ethnic minority groups have little opportunity to participate in the new nation. Providing formal education for these disadvantaged communities is made particularly difficult by low literacy rates in the myriad indigenous languages used by these groups, some of which are not written, and the inability to speak, read, or write Lao. The Minority Women's Literacy and Basic Skills project has implemented a non-formal education programme to provide a means for disadvantaged minority women ages 15-45 years to learn in one or two years the basic elements of the primary curriculum. In addition to functional literacy in Lao, women are trained in critical life skills and trade-related activities, such as weaving and sewing, health and hygiene, agriculture and gardening, and principles of modern income generation. The women are encouraged to develop and market their traditional regional handicrafts and employ modern designs and sales strategies. In addition to income generation, the women's interaction in the marketplace expands their opportunities to participate in modern Laotian society. Another benefit of this approach is to use interest in money-making activities as a vehicle for introducing literacy and numeracy, which has benefits in other aspects of daily life. Villagers who did not previously see any benefit in learning Lao

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took an interest when they saw they could apply their literacy skills in selling their products. The project has attracted the interest of the Laotian government as well, lending support to non-formal education approaches and strengthening the government's efforts at decentralization. For while the Project could not directly reach all the disadvantaged women of Laos, it has helped to strengthen the capacity in the country to expand non-formal education to marginalized populations and ethnic minorities. Adapted from UNESCO (1997).

1.17 Technology and distance education

There are new and exciting ideas concerning the utility of technology for literacy and adult education provision for out of school youth and adults. Much of this work is still in its infancy and evolving very rapidly. Technological solutions to instruction – known as computer based education (CBE) or computer assisted instruction (CAI) – have been used, primarily in industrialized nations, for more than a decade, and the presence of microcomputers in the classrooms of schools has continued to grow at an exponential rate (Wagner & Hopey, 1999). With adult instruction, growth of CBE and CAI has recently begun to show similar growth patterns, but it remains limited to a few sectors in a limited number of countries. Especially promising is the use of CBE and CAI in second language/literacy instruction. Another use of technology for literacy entails telecommunications networks, such as the Internet, for distance education. Now available in all countries of the world (though with widely varying penetration), the Internet offers tremendous possibilities to improve the communications infrastructure for literacy and adult education programmes within and across countries. Broadly speaking, distance education – using radio, television and telecommunications – is likely to see a dramatic growth in the decade to come, though some programmes have built a track record of over a decade already (see Box 15).

Box 15. Gobi Women and Distance Education in Mongolia.

In the face of major political change, survival may depend on each individual's opportunity and ability to learn new skills and practices. But in a country with a widely-scattered population and few resources, how can instruction effectively reach those in need? Non-formal distance learning may prove crucial in helping populations in such circumstances to survive. The 1990 transition from communist to democratic economy devastated the rural population of Mongolia, particularly the nomadic people of the Gobi Desert. In the wake of this change, a tremendous burden of labor and management of livestock fell to the women and those children kept out of school to help. Women's traditional roles now included taking care of the animals and using meager resources to produce marketable goods, requiring skills relied on 60 years earlier that were now unfamiliar, forgotten, or in need of improvement. The Gobi Women's Project, started in the early 1990s, is a non-formal distance learning programme utilizing print and radio lessons to communicate and renew a number of survival and income-generating skills important to the nomadic women of the Gobi Desert. The project provided radios as well as batteries for them and relevant booklets. Learning materials were supplemented by newsletters, demonstration materials, and information sheets. Teachers traveled to the women's homes to check their progress and help them with any specific problems. The programme covered such topics as health, survival and income generation, business, as well as literacy and numeracy. Participants reported that not only were they satisfied with the new skills they acquired through the programme, but they also enjoyed the interaction with teachers and other learners and gained a sense of self-sufficiency within their environment. Adapted from Robinson (1997).

As many have pointed out, the cost of technology has been until relatively recently too high even for industrialized countries' educational programmes, not to mention the developing countries. But the price-to-power ratio (the relative cost, for example, of a unit of computer memory or the speed of processing) continues to drop sharply. While the cost of the average

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microcomputer has remained constant for about a decade, the power of the year 2000 computer is 1000 times greater than that produced by a PC in 1980. If present trends continue, the capabilities for CAI and CBE literacy instruction and for telecommunications are likely to go far beyond the elementary approaches of today. One of the challenges over the coming years will be how to achieve the economical use of technology for education in developing countries. Various opportunities are now becoming apparent. The International Literacy Institute (ILI) has, for example, developed a CD-ROM based teacher training tool for adult educators which is now in the process of being adapted to local and regional needs in a number of countries. On the cutting edge of technology, the ILI's sister organization, the National Center on Adult Literacy, has been helping the U.S. Department of Education develop online instructional and training tools for adult educators and learners in the United States (see Box 16).

Box 16. LiteracyLink: Internet-based Adult Basic Education in the United States

In 1996, the U.S. Department of Education committed five years of support to PBS Adult Learning Service, the National Center on Adult Literacy at the University of Pennsylvania, and Kentucky Educational Television to build, for the first time, an instructional system using the latest in video, on-line, and computer technology to help adults receive literacy instruction and gain high school diplomas or equivalencies in the United States – in a program known as *LiteracyLink*. This program is designed to serve the more than 40 million Americans who require basic skills instruction. As an on-line lifelong learning system, it incorporates the latest Internet technologies (Java and streaming video), video technologies (digital, closed-circuit, broadcast, satellite), and computer technologies (digitized audio and video, computer-generated graphics, interactive multimedia, and text). *LiteracyLink* has two major goals: (1) increase the access of adults to learning opportunities that will enable them to obtain their high school diplomas, and (2) improve the quality of instruction available to individuals and adult literacy providers nationwide through enhanced resources and expanded staff development. As of late 1999, thousands of adult educators in dozens of sites across the U.S. have participated in the teacher training part of the project, which incorporates an electronic community of teachers, a series of on-line workshops with professional certification, a collection of web sites that have been evaluated for adult learning, and a database of Internet-based lesson plans. Adapted from Wagner and Hopey, 1999.

CAPACITY BUILDING, PROFESSIONALIZATION AND AGENCY SUPPORT

1.18 National capacity building

Capacity building is at the heart of the renewal of effective and high quality work in literacy and adult education. Unfortunately, the fields of literacy and adult education tend to get a very small share of resources when it comes to national capacity building, as the largest share of new resources since the Jomtien conference has focused on building capacity for primary schooling. This is unfortunate, since the types of innovations described in this paper are dependent on enlightened, skilled and motivated professionals, including policy makers, programme directors, specialists, MIS technicians and so forth. This kind of capacity remains very thinly dispersed in most of the countries most in need of improved literacy programming.

In this effort to improve the quality of literacy work, there is a need to support national, regional, and international networks that enable literacy and adult educators from diverse settings and types of programmes to form communities for generating and disseminating knowledge in the

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field. As part of this effort, the International Literacy Institute and UNESCO have been offering, since 1997, an annual month-long international Summer Literacy Training Programme in Philadelphia, to which professionals from more than 70 countries have participated (for more information, consult the ILI's website at: www.literacyonline.org).

One area of special importance for building capacity is that of local universities and institutes, as well local and regional NGOs. Indeed, NGOs, as noted elsewhere, are playing an increasingly important role in literacy provision, and so their involvement in capacity building is essential. Until local capacity building can be achieved, the field is likely to remain fragmented; amount of international assistance can be effective without a local capacity to build upon. This is surely one of the highest priorities for improving literacy work in any country.

1.19 Professional development and training

The committed involvement of professionals is necessary for any system-wide change in educational services. As noted earlier, a major constraint in attempts to innovate is voluntary (or near-voluntary) role of many literacy workers, leading to high turnover and, at times, low motivation. Clearly, with limited resources, the lack of full-time professionals makes it difficult to cary out meaningful professional development. Thus, there is a major need to develop systems and capacities that enable staff to engage in professional training and development as an ongoing process within programmes and to link staff development more closely with service improvement and evaluation/monitoring. Teachers and administrators should have more opportunities to understand and learn from local problems and to invent local solutions.

1.20 External agency support

Many agencies, bilateral and multilateral, provide support for literacy and adult education, but only UNESCO has put literacy in its top list of educational priorities from its inception and over the decades. In addition, two UNESCO-supported institutions – UNESCO Institute of Education in Hamburg, which organized CONFINTEA-V in 1997, and the International Literacy Institute, which organized the World Conference on Literacy (Philadelphia, 1996) and a series of regional forums on literacy – have helped UNESCO's international agenda in literacy and adult education. In addition, UNESCO's regional offices have organized a wide variety of events on literacy and non-formal education, even within the constraints of very tight budgets.

In addition, UNDP, UNICEF and the World Bank have supported adult literacy programmes over the decades, along with a number of key bilateral agencies (such as NORAD, SIDA, DFID, CIDA, DSE, DANIDA, USAID). As part of its Education Sector Review (1997), the World Bank, in collaboration with Norway, has begun recently an important initiative on adult basic education and literacy in Africa. Various evaluation projects have been commissioned

such as in Uganda, and projects in Ghana, Senegal, Gambia and elsewhere are underway or in planning. UNDP was active in the 1960s-1970s with the Experimental World Literacy Programme, and UNICEF remains active in promoting basic skills and life skills for out-of-school youth (particularly girls and young women).

In most developing countries, it is probably accurate to say that there are as many out-of-school youth and adults with low basic skills as there are school-age children in school. Yet, on average, the resources spent on NFE programmes for such out-of-school youth and adults rarely exceed 5% of the national educational budget in any country. A similar statement can be made about the support from most donor agencies, which provide the bulk of resources for new projects in education in LDCs. With so little invested by such donor agencies, it is no wonder that renovation and innovation are difficult to achieve. However, given the increased emphasis of the World Bank and others on 'poverty reduction' and the centrality of literacy in achieving this goal, it would seem likely that external agency support of literacy and adult education would grow substantially over the next decade or so, as it has in the OECD countries during this past decade.

CHALLENGES FOR THE FUTURE

The international statistics on literacy in the year 2000, dramatic as they are, do not fully reveal the endemic problems associated with adult literacy work in today's world. The central issue, as with the broader field of education, is the *quality* of the education as it relates to the *individual* youth and adult learner. National campaigns and programmes have often gone wrong because of the need for too rapid progress and for economies of scale. This combination of factors has led to low motivation on the part of adult learners, and to poor outcomes in both learning achievement and participation rates. Literacy and adult education will need to focus more than ever before on which *kinds* and what *levels* of literacy are required for each society, as well as for specific groups within that society. What is needed is a greater focus on programme quality along the following themes: professional development, learner motivation, knowledge-based programme design, and increased openness to new approaches.

Professional development. The professional development of administrators, directors, teachers, and tutors is an ongoing and critical process for programme improvement in literacy and adult education. Volunteer-based programmes are an important component in many countries, but the tenure of the typical tutor is often too short to assure quality improvement. Since most countries (rich and poor) invest an extremely small fraction of available education resources in the non-formal sectors of adult education (relative to the formal school system), there is a compelling need to bring the matter of professionalization to the attention of policy makers. There is also a very important need to provide the teacher trainers with new and up-to-date instructional methods.

Learner motivation. The motivation of adult learners is a key dimension that either can promote participation and retention, or, when lacking, can lead to poor take up and retention of literacy and adult education programmes. In contrast to what was thought over recent decades, the challenge of motivation lies not in providing the "political will" of governments, but rather in finding ways to provide what the private sector terms, rather simply, "customer service." Thus, in order to reach the unreached and the most excluded (e.g., unschooled, women, ethnic-linguistic minorities, rural, and migrants) programmes will need to be tailored to address diverse needs, and have direct, discernable outcomes, and incentive-rich experiences. Building learner demand is one of the most pressing challenges in the broad field of adult education today.

Knowledge-based programme design. Much more needs to be done in order to build the knowledge base and expertise employed in the service of literacy and adult education. Relative to other education areas, few research studies are being produced in literacy and adult education in developing countries, and donor agencies have been too reluctant up until now in their support of serious evaluation studies or applied research. To move the field forward will require a greater emphasis on what works and what doesn't. Two promising avenues should be promoted in this regard in LDCs. First, institutions of higher education which train teachers (e.g. universities, colleges and institutes) should become more involved in literacy and basic education work, and provide up-to-date professional training to teachers in these fields. Second, such institutions, which are already well positioned in the area of Internet access, should become the loci for both receiving and disseminating information that can assist in building the local and regional knowledge base. Clearly, both of these are areas in need of further support from donor agencies.

Openness to new approaches. A striking aspect of adult literacy work is its relative isolation. For the most part in both developing and industrialized nations, literacy and adult education specialists and practitioners have little contact with mainstream specialists in education, and even less with sectors outside of education. There is an overall need to be open to the diversity of learners and in the contexts in which they reside, as well as to the tremendous expert resources that could be available to improve literacy work worldwide. No new approach is more obvious than technology, which has been taken up increasingly in the formal school settings, but has yet to have a serious impact into adult education in most countries. Indeed, in developing countries, the overall limitations in fiscal and human resources have meant that technology remains far from being implemented, even though substantial cost-effectiveness appears to be achievable. Furthermore, literacy and adult education work are in serious need of cross-fertilization from other sectors as well, even though the connections with such sectors as health, income generation, and so forth are now well documented. Finally, the role of NGOs is very important, as they represent a key source of innovation and dynamism that will be essential for promoting literacy in the coming decades through devolution and decentralization.

CONCLUSIONS

At the Jomtien conference in 1990, Goal #6 was to reduce the illiteracy rate in each country by 50% in one decade. This has not happened in any country. And yet there is a widening recognition that low-literacy and poor basic learning competencies (by varying standards) are even more prevalent today than had been assumed a decade ago. Furthermore, with population growth the absolute number of illiterates has declined very little since Jomtien.

With national economies and civic participation more dependent than ever on an educated and literate citizenry, the world education community is faced with multiple and serious challenges. On the one hand, agencies which support or engage in literacy work need to be more realistic about what can be achieved within budget constraints. Such realism entails lowering expectations about major changes in individual, social, and economic outcomes, while at the same time holding literacy service providers to higher standards of accountability and professionalism. As in formal schooling, literacy and adult education do not provide a magic answer for any society, but they are part and parcel of all aspects of national development. On the other hand, agencies can enhance adult literacy programmes by:

- Building a more solid knowledge base for field-based innovations,
- improving professional development and human resources capacity,
- providing better pathways from non-formal youth and adult literacy programmes into the formal school system,
- combining non-formal programmes for adults and early childhood programmes,
- taking advantage of new technologies, and
- investing resources in assessment, evaluation and monitoring, surveys and applied research, and
- creating new synergies and collaborations between govermental and non-governmental agencies.

This global thematic study has attempted to highlight some of the most important problems and prospects in improving the quality of literacy and adult education work, and efforts to meet the needs of people who are often excluded or marginalized from quality education. The importance of literacy and basic learning competencies in the lives of people the world over is difficult to overestimate. The simple fact that even today nearly one-quarter of humanity lacks such essential – and obtainable – competencies still shocks the world. It will be all the more striking in the year 2020, if we have been unable to substantially improve this situation. Yet the tools for making major gains are within reach if the best know-how can be put into service. Future literacy and adult education work will require a sustained, coherent, informed and increased effort.

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COUNTRIES & TERRITORIES	AGE GROUP	TOTAL			MALE			FEMALE		
		1970	1990	2000*	1970	1990	2000*	1970	1990	2000*
Developing Countries	15-19	33.9	19.1	16.1	23.7	13.9	11.8	44.5	24.7	20.6
	20-24	39.8	21.5	17.8	28.2	13.9	11.8	44.5	24.7	20.6
	25-44	52.9	30.9	23.2	39.3	21.6	16.4	67.2	40.6	30.2
	45+	74.4	57	45.9	62.2	42.6	32.3	86.4	71.3	59.2
Sub-Sahara Africa	15-19	61.8	35.9	26.4	49.9	28.5	20.9	73.5	43.3	31.9
	20-24	68.3	40.3	31.6	56.2	31.3	25	80.3	49.2	38.1
	25-44	79.8	55.5	42.4	69	43.2	32.7	90.1	67.2	31.8
	45+	92.6	82	72.5	86.6	71.6	59.9	97.8	91.5	83.7
Arab States	15-19	54.6	27.7	20.6	39.3	19.8	14.9	70.5	36	26.6
	20-24	61.8	32.9	23.7	45.1	23.3	17	78.5	43.1	30.7
	25-44	73.9	48.5	35.2	56.5	34.4	24.7	88.8	63.3	46.2
	45+	85.3	76.3	66.4	74.1	61.1	48.6	96.1	90.3	82.1
Latin America/Caribbean	15-19	14.6	6.2	4.1	13.3	6.1	4.2	16	6.3	4
	20-24	17.6	7.6	5.1	15.8	7.3	5.1	19.4	8	5
	25-44	24.9	12.7	8.5	21.4	11.6	8	28.3	13.7	24.3
	45+	37.3	27.5	21.4	31	23.1	18.2	43.3	31.5	24.3
Eastern Asia	15-19	19.5	6.3	3.6	10.3	4	2.5	29.2	8.8	4.8
	20-24	25.5	8.5	4.7	14	5.1	3.1	37.9	12.2	6.4
	25-44	43.8	16.8	9.8	27.9	9	5.5	61	25	14.2
	45+	78	51.8	36.2	63.5	34.1	20.9	91.6	69.4	51.3
Southern Asia	15-19	56.7	37.7	29.4	42.7	26.8	20.7	72	49.5	38.6
	20-24	61.1	42.3	33.4	46.7	30.4	23.7	76.2	55.3	44
	25-44	69.2	53.1	64.7	55.4	39.7	32	83.9	67.7	57.2
	45+	79.1	71.1	64.7	67	57	50	92.4	85.5	79.7

Source: UNESCO (1990)

* Estimated

TABLE 1. Adult Illiteracy Rates (%) by Age Group and Region

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ARAB STATES

COUNTRIES AND TERRITORIES	% 1ST GRADERS REACHING (LYA)		ESTIMATED ADULT LITERACY RATES%			ESTIMATED NUMBER ADULT ILLITERATES(1000s)			
	Grade 4	Final Grade (Yrs)	Men		Women	Total	%F	Total	%F
			1980	1995	1995	1980		1995	
Algeria	98	90 (6)	54.8	73.9	24.3 49	6103	64	6582	65.8
Bahrain	95	83 (6)	79.5	89.1	60.2 79.4	63	54	56	55.5
Djibouti	96	94 (6)	45.3	60.3	18.1 32.7	108	61.1	181	63.8
Egypt	99	98 (5)	53.9	63.6	25.5 38.8	15946	61.5	18954	62
Iraq			55.3	70.7	25 45	4188	62.1	4848	64.6
Jordan	98	79 (10)	82.4	93.4	53.9 79.4	464	71.1	414	74.7
Kuwait	99	99 (4)	72.8	82.2	59.1 74.9	264	48.5	200	58.6
Lebanon			90.6	94.7	82 90.3	222	67.1	151	66.7
Lib. Arab Jamahirlya			72.4	87.9	31 63	749	68	702	73
Mauritania	71	62 (6)	41.4	49.6	18.7 26.3	613	59.2	806	60.4
Morocco	83	72 (6)	42	56.6	16.2 31	7824	59.8	9730	61.8
Oman	98	94 (6)							
Palestine A.T.	100	98 (6)							
Qatar	97	92 (6)	72	79.2	64.8 79.9	47	36.2	82	27.1
Saudi Arabia	96	91 (6)	60.2	71.5	31.7 50.2	2786	56.7	3871	55
Somalia									
Sudan	94	81 (6)	43.1	57.7	17 34.6	7216	59.6	8507	60.9
Syrian Arab Republic	95	85 (6)	72.4	85.7	34.4 55.8	2073	69.7	2259	75.4
Tunisia	95	87 (6)	61.1	78.6	32.3 54.6	1974	64	1930	67.8
United Arab Emirates	99	96 (6)	71.8	78.9	63.7 79.8	219	28.8	272	29.5
Yemen									

Source: UNESCO (1997)

TABLE 2a. School Enrollment Literacy Rate, and Number of Adult Illiterates by Country

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SUB-SAHARAN AFRICA

COUNTRIES AND TERRITORIES	% 1ST GRADERS REACHING (LYA)		ESTIMATED ADULT LITERACY RATES%			ESTIMATED NUMBER ADULT ILLITERATES,(1000s)			
	Grade 4	Final Grade (Yrs)	Men 1980	Men 1995	Women 1980	Women 1995	Total 1980	%F 1980	Total 1995	%F 1995
Angola	34	34 (4)								
Benin	71	61 (6)	28	48.7	9.7	25.8	1532	56.7	1792	60.2
Botswana	91	84 (7)	70.4	80.5	43.2	59.9	207	69.6	255	69.1
Burkina Faso	87	61 (6)	18.8	29.5	4.3	9.2	3458	55	4597	57.1
Burundi	75	74(6)	37.4	49.3	12	22.5	1740	61.7	2221	62.4
Cameroon	70	58 (6)	58.9	75	29.7	52.1	2695	64.3	2712	66.5
Cape Verde			64.2	81.4	38	63.8	79	69.6	64	71.2
Ctr African Republic	38	16 (6)	40.5	68.5	19	52.4	956	60.3	760	62.5
Chad	39	21 (6)	46.7	62.1	19.4	34.7	1751	61.5	1868	64.3
Comoros	84	76 (6)	56	64.2	40	50.4	89	58.4	143	57.9
Congo	64	44 (6)	64.5	83.1	39.6	67.2	444	64.9	354	67.7
Cote D'Ivoire	79	72 (6)	34.3	49.9	13.7	30	3309	54.7	4339	57.2
Equatorial Guinea			77.2	89.6	44.7	68.1	51	70.6	49	76.5
Eritrea	87	79 (5)								
Ethiopia	54	51 (6)	32.1	45.5	14	25.3	15117	56.8	19052	57.5
Gabon			54.3	73.7	28	53.3	321	62.6	295	65.1
Gambia	87	82 (6)	37	52.8	12.5	24.9	278	59	403	62.3
Ghana	84	78 (6)	59	75.9	30.5	53.5	3286	63.7	3387	66.5
Guinea	87	73 (6)	34.4	49.9	10.7	21.9	1877	58.2	2272	61
Guinea-Bissau			53.4	68	25.6	42.5	295	62.7	282	65.5
Kenya	78	42 (8)	72.2	86.3	44.2	70	3479	67.1	3237	69
Lesotho	85	68 (7)	70.5	81.1	45.2	62.3	334	68	340	68.1
Liberia			38	53.9	11.2	22.4	787	58.4	1014	62.4
Madagascar	37	28 (5)								
Malawi	94	91 (8)	63.9	71.9	27.8	41.8	1789	69	2587	68.9
Mali	81	61 (6)	20.2	39.4	8.7	23.1	3135	55.5	3917	57.4
Mauritius	100	99 (6)	81.6	87.1	66.5	78.8	163	65.6	138	62.4
Mozambique	48	47 (5)	44	47.7	12.2	23.3	4558	3.8	5298	65.5

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SUB-SAHARAN AFRICA (cont'd)

COUNTRIES AND TERRITORIES	%1ST GRADERS REACHING (LYA)		ESTIMATED ADULT LITERACY RATES%				ESTIMATED NUMBER ADULT ILLITERATES,(1000s)			
	Grade	Final	Men		Women		Total	%F	Total	%F
	4	Grade (Yrs)	1998	1995	1980	1995	1980		1995	
Namibia	86	74 (7)								
Niger	83	62 (6)	13.9	20.9	2.8	6.6	2730	54.4	4081	55.3
Nigeria	83	74 (6)	46.7	67.3	23	47.3	26229	60.2	26075	62.7
Rwanda	69	44 (7)	55	69.8	29.6	51.6	1534	62	1695	62.5
Sao Tom & Principe										
Senegal			31	43	12.1	23.2	2376	56.3	3084	57.7
Seychelles	99									
Sierra Leone			30	45.4	8.5	18.2	1494	58.2	1727	61.3
South Africa	77	68 (7)	76.9	81.9	74.5	81.7	4234	53.2	4731	51
Swaziland	83	69 (7)	63.8	78	57.1	75.6	120	55.8	114	56.2
Togo	93	85 (6)	49.2	67	18.4	37	967	62.9	1085	66.5
Uganda	63	40 (7)	61.8	73.7	31.7	50.2	3669	65	4172	66.2
United Rep. Tanzania	87	77 (7)	65.8	79.4	34.1	56.8	4912	67	5171	68.7
Zaire	83		74.6	86.6	45.2	67.7	5931	70.1	5184	73
Zambia	92	78 (7)	64.7	85.6	43.2	71.3	1308	63.6	1082	68
Zimbabwe	79	69 (7)	82.8	90.4	68	79.9	919	65.7	940	68.3

Source: UNESCO (1997)

TABLE 2b. School Enrollment Literacy Rate, and Number of Adult Illiterates by Country

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EASTERN ASIA/OCEANIA

COUNTRIES AND TERRITORIES	% 1ST GRADERS REACHING (LYA)		ESTIMATED ADULT LITERACY RATES%				ESTIMATED NUMBER ADULT ILLITERATES,(1000s)			
	Grade 4	Final Grade (Yrs)	Men		Women		Total 1980	%F 1980	Total 1995	%F 1995
			1980	1995	1980	1995				
Brunei Darussalam	95	91 (6)	85.7	92.6	67.8	83.4	27	63	22	66.7
Cambodia	59	50 (5)								
China	95	92 (5)	78.6	89.9	52.7	72.7	218848	67.6	166173	71.9
Cook Islands										
Dem. Republic Korea										
Fiji	87	82 (6)	87	93.8	78.9	89.3	66	60.6	43	63
Indonesia	92	85 (6)	77.5	89.6	57.7	78	28325	66.5	21507	68.5
Kiribati	91	90 (7)								
Lao People's Rep.	59	53 (5)	55.6	69.4	27.7	44.4	1083	61.8	1170	65.6
Malaysia	99	96 (6)	79.6	89.1	59.7	78.1	2400	67	2057	66.8
Mongolia			81.5	88.6	63.3	77.2	261	67	256	66.6
Myanmar			85.7	88.7	68.2	77.7	4727	69.2	4913	67.1
Papua New Guinea	67	52 (6)	70	81	45.1	62.7	737	62.4	724	64.5
Philippines	74	69 (6)	90.6	95	88.7	94.3	2911	54.8	2234	53.1
Republic of Korea	100	100 (6)	97.4	99.3	90.1	96.7	1566	79.5	697	82.3
Samoa										
Singapore			91.6	95.9	74	86.3	301	75.1	196	76.6
Soloman Islands	85	73 (6)								
Thailand	91	87 (6)	92.3	96.5	77.6	91.2	5133	72.2	2916	73.1
Tonga	92	90 (6)								
Tuvalu	96	96 (8)								
Vanuatu	72	53 (6)								
Vietnam			90	96.5	77.6	91.2	5133	72.2	2916	73.1

Source: UNESCO (1997)

TABLE 2C. School Enrollment Literacy Rate, and Number of Adult Illiterates by Country

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LATIN AMERICA/ CARIBBEAN

COUNTRIES AND TERRITORIES	% 1ST GRADERS REACHING (LYA)		ESTIMATED ADULT LITERACY RATES%				ESTIMATED NUMBER ADULT ILLITERATES,(1000s)			
	Grade 4	Final Grade (Yrs)	Men		Women		Total	%F	Total	%F
			1980	1995	1980	1995	1980		1995	
Antigua/Barbuda										
Argentina			94.3	96.2	93.6	96.2	1185	54.2	935	51.9
Bahamas	87	84 (6)	97.5	98.5	96	98	4	75	3	59.6
Barbados			96.6	98	93.7	96.8	9	66.7	5	64.6
Belize	72	60 (8)								
Bolivia	79	44 (8)	80.9	90.5	58.8	76	937	69.5	745	72.6
Brazil	74	37 (8)	76.3	83.3	72.8	83.2	18717	54.3	18331	50.5
British Virgin Islands										
Chile	93	79 (8)	92	95.4	90.9	95	634	54.1	485	53.6
Colombia	65	59 (5)	87.4	91.2	86.5	91.4	2080	52.8	2046	50.6
Costa Rica	92	84 (6)	91.6	94.7	91.4	95	118	50.8	115	48.6
Cuba	94	92 (6)	91	96.2	87.3	95.3	716	58.2	364	55.3
Dominica	90	83 (7)								
Dominican Republic	65	52 (8)	75.3	82	73.5	82.2	842	51	908	48.8
Ecuador			85.5	92	78.7	88.2	815	59.6	719	59.8
El Salvador	64	39 (9)	66.4	73.5	59.9	69.8	904	56.2	975	55.7
Grenada										
Guatemala			56.3	62.5	41	48.6	1920	57.1	2627	57.7
Guyana			96.4	98.6	93.1	97.5	24	66.7	11	65.9
Haiti	55	39 (6)	36.2	48	28.9	42.2	2145	54.7	2360	54.5
Honduras			64	72.6	60.6	72.7	710	52.4	869	49.9
Jamaica	99	89 (6)	73.2	80.8	81.1	89.1	289	42.9	254	36.5
Mexico	88	81 (6)	73.2	80.8	81.1	89.1	289	42.9	254	36.5
Neth. Antilles										
Nicaragua	65	53 (6)	61	64.6	60.8	66.6	574	51.2	822	51.5

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LATIN AMERICA/ CARIBBEAN (Cont'd)

COUNTRIES AND TERRITORIES	% 1ST GRADERS REACHING (LYA)		ESTIMATED ADULT LITERACY RATES%				ESTIMATED NUMBER ADULT ILLITERATES,(1000s)			
	Grade 4	Final Grade (Yrs)	Men		Women		Total	%F	Total	%F
			1980	1995	1980	1995	1980		1995	
Panama			86.3	91.4	84.9	90.2	157	52.2	161	52.8
Paraguay										
Peru	79	65 (6)	89.9	93.5	83.7	90.6	241	61.4	235	58.6
St.Kitts and Nevis										
Saint Lucia	95	95 (7)								
Suriname			91.5	95.1	83.8	91	27	66.7	19	65.9
Trindad & Tobago	95	94 (7)	96.9	98.8	93.3	7	35	68.6	19	72
Uruguay	96	92 (6)	94.3	96.9	95.3	97.7	110	46.4	65	44.9

Source: UNESCO (1997)

TABLE 2d. School Enrollment Literacy Rate, and Number of Adult Illiterates by Country

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SOUTHERN AISA

COUNTRIES AND TERRITORIES	% 1ST GRADERS REACHING (LYA)		ESTIMATED ADULT LITERACY RATES%				ESTIMATED NUMBER ADULT ILLITERATES,(1000s)			
	Grade 4	Final Grade (Yrs)	Men		Women		Total	%F	Total	%F
			1980	1995	1980	1995	1980		1995	
Afghanistan	53	37 (6)	32.6	47.2	5.7	15	7371	57	8169	60.5
Bangladesh	60	53 (5)	41.3	49.4	17.2	26.1	33551	57.2	45082	57.7
Bhutan	88	70 (7)	41.1	56.2	14.9	28.1	532	59	558	62.1
India	67	62 (5)	55.3	65.5	25.3	37.7	250592	60.9	290705	62.8
Islamic Rep. Of Iran	93	90 (5)								
Maldives	93	93 (5)	90.6	93.3	89.2	93	9	55.6	9	49.2
Nepal	55	52 (5)	30.6	40.9	7.3	14	6784	56.3	9149	58.9
Pakistan	52	48 (5)	38.4	50	14.7	24.4	34575	55.6	48693	58
Sri Lanka	100	98 (5)	90.9	93.4	79.5	87.2	1410	68.3	1241	66.8

Source: UNESCO (1997)

TABLE 2e. School Enrollment Literacy Rate, and Number of Adult Illiterates by Country

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COUNTRY	RURAL AREA	URBAN AREA
Afghanistan	85 3	62 5
Pakistan	82 6	53 1
Nepal	81 3	52 6
Togo	78 3	43 1
Bangladesh	74 5	51 3
India	67 3	34 9
Tunisia (age 10+)	62 2	35 3
Brazil	46 3	16 8
Dominican Republic	43	20 9
El Salvador (age 10+)	42 2	15 5
China	37 8	17 6
Indonesia	37 6	16 5
Malaysia (age 10+)	32	19
Ecuador	27 3	6 2
Colombia	24 8	9
Philippines	23.1	6 9
Sri Lanka	15 2	6 6
Argentina (age 10+)	14 6	4 1

Note: Data are from censuses carried out between 1980 and 1982
Sources: UNESCO (1998)

TABLE 3. Illiteracy Rates (%) of Urban and Rural Populations Aged 15 Years and Over

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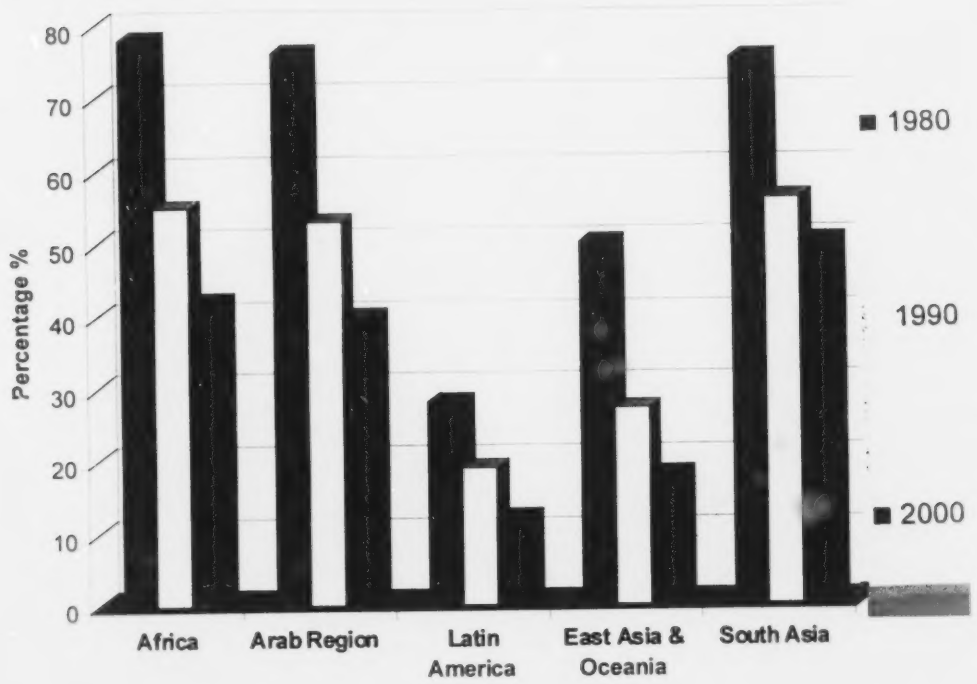
FIGURE 1. ADULT ILLITERACY RATES (15 YEARS AND OLDER), BY REGION



Source: UNESCO (1997)

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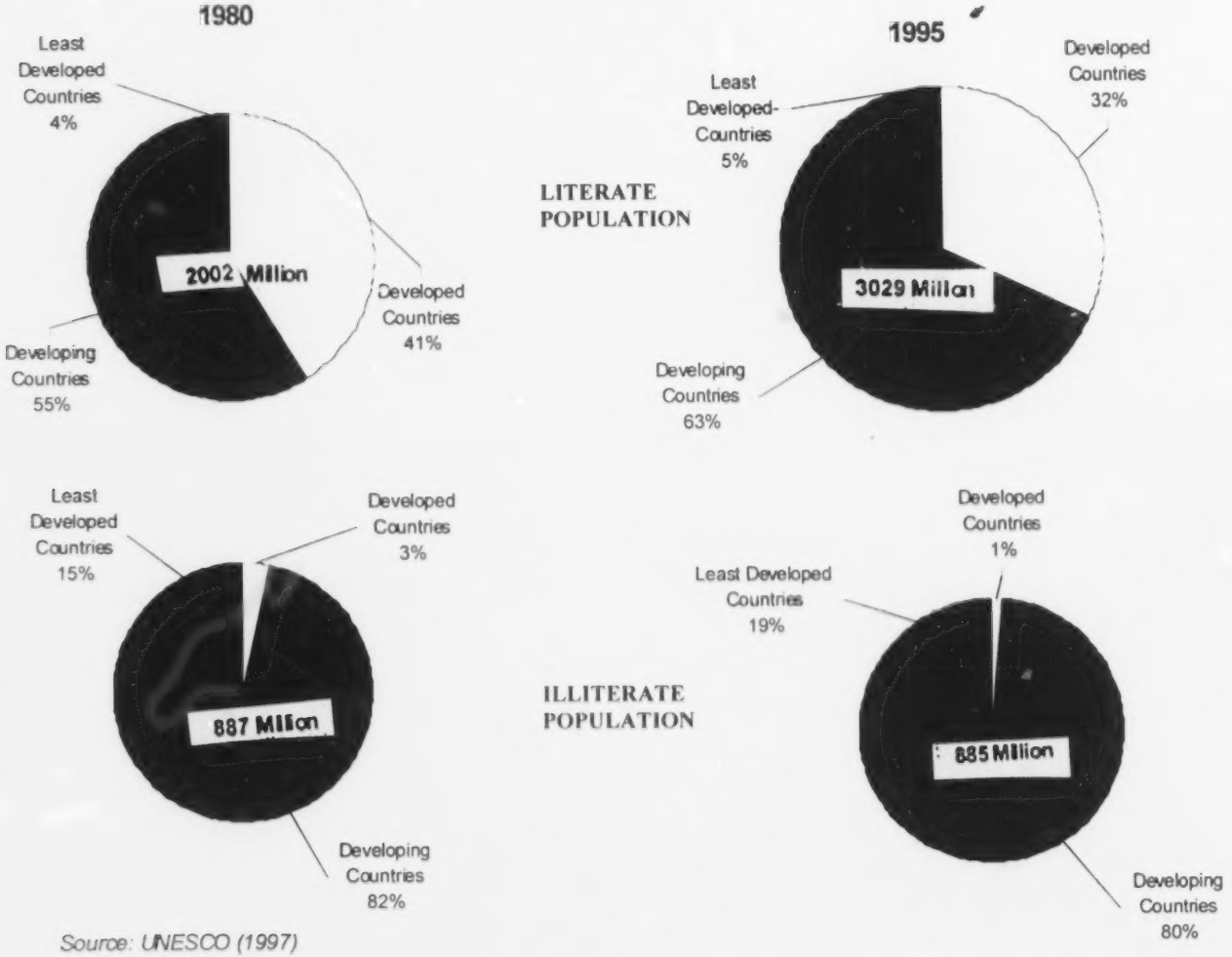
FIGURE 2. PERCENTAGE DISTRIBUTION OF WORLD'S LITERATE AND ILLITERATE POPULATION



Source: UNESCO (1997)

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Figure 3. GENDER GAP IN ADULT LITERACY RATES BY REGION, 1980 AND 1995

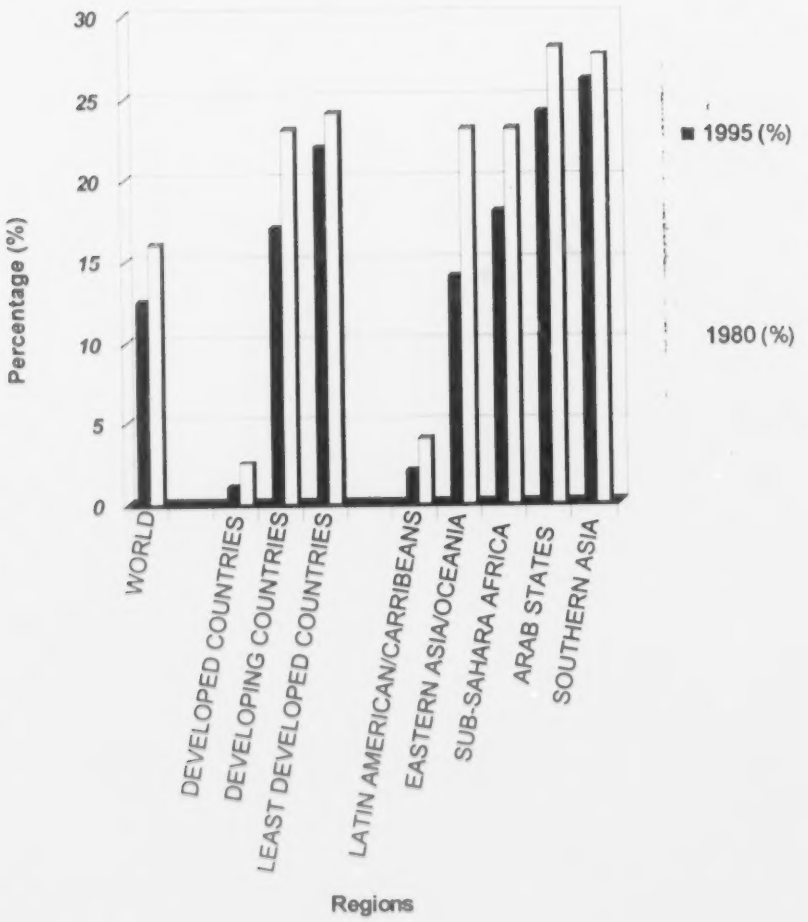

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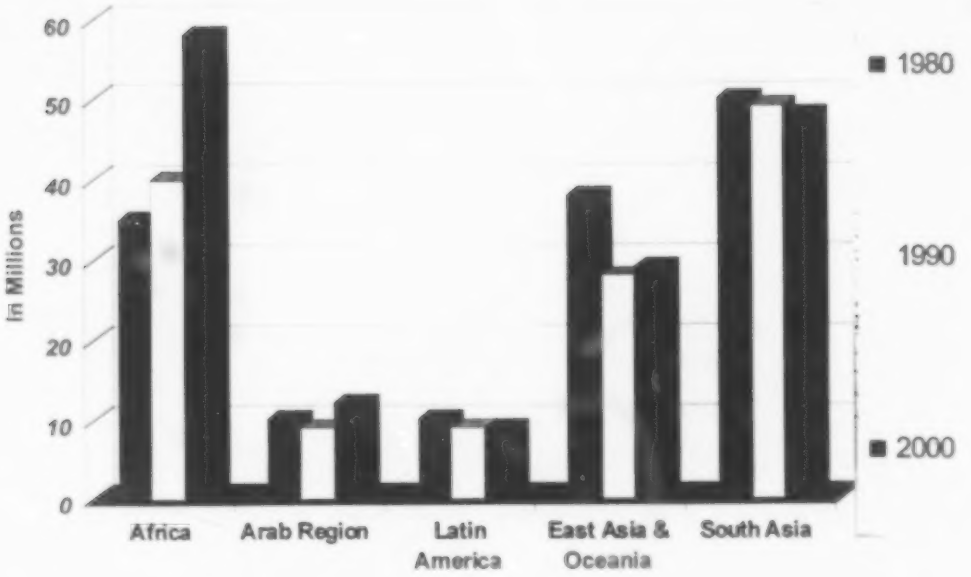
FIGURE 4. OUT OF SCHOOL YOUTH (6-15 YEARS OLD)



Source: UNESCO (1997)

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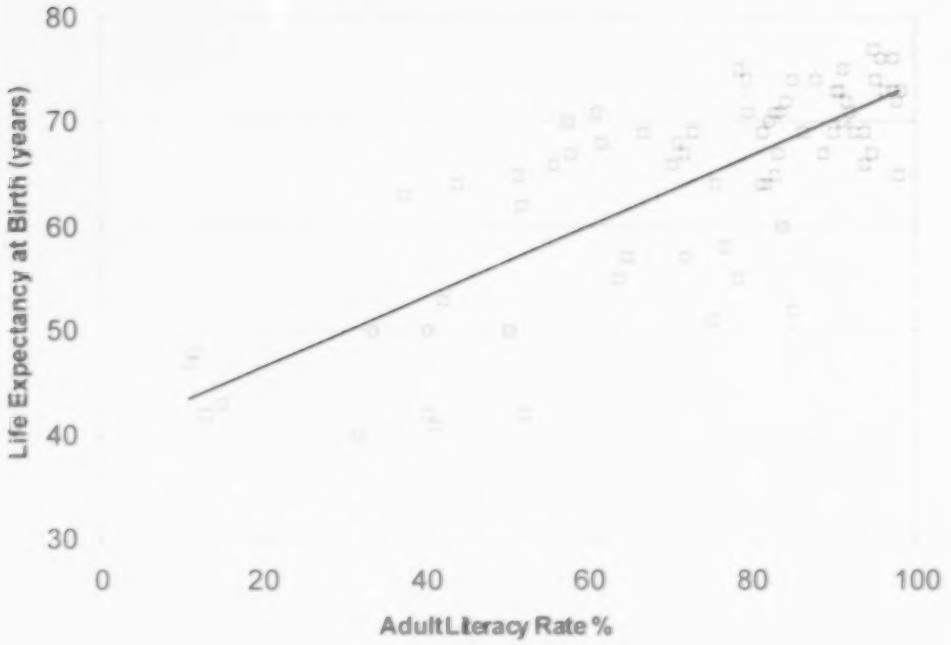
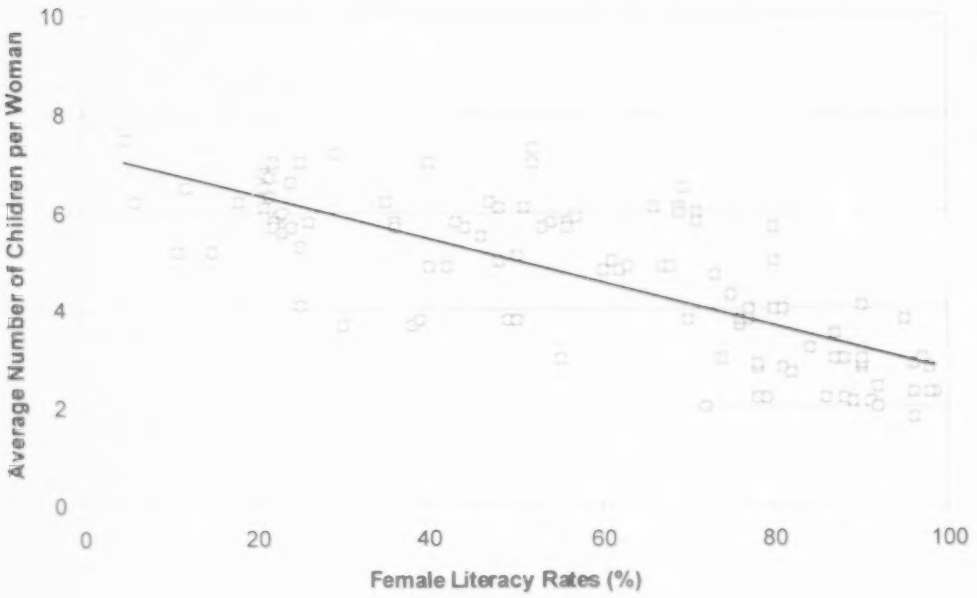
FIGURE 5. ADULT LITERACY RATES (AGE 15+) AND LIFE EXPECTANCY AT BIRTH IN DEVELOPING COUNTRIES, 1995



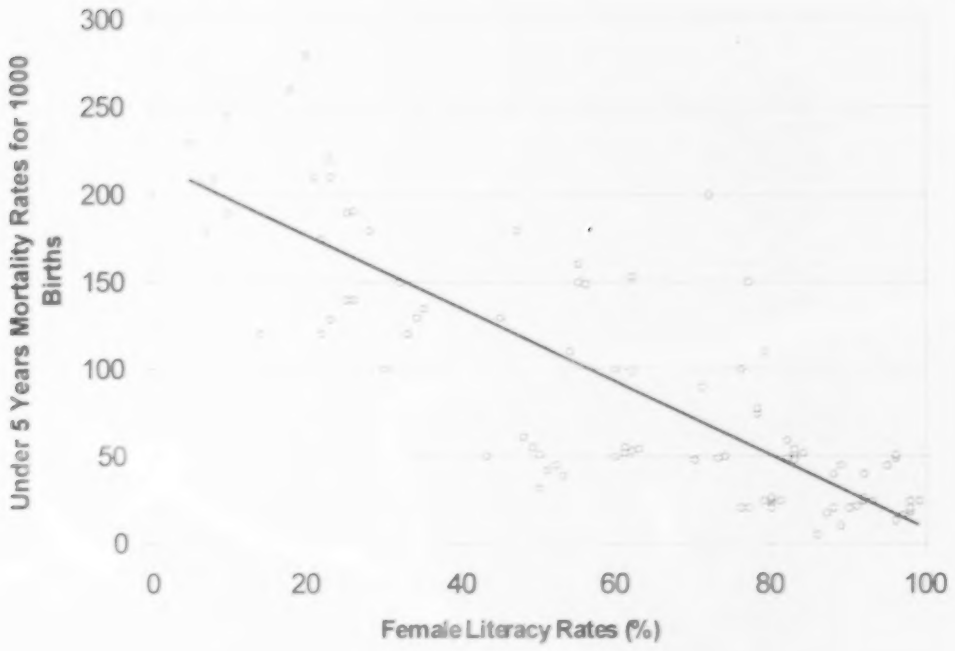
Source: UNESCO (1997)

FIGURE 6. TOTAL FERTILITY RATES AND FEMALE LITERACY RATES (AGE 15+) IN DEVELOPING COUNTRIES



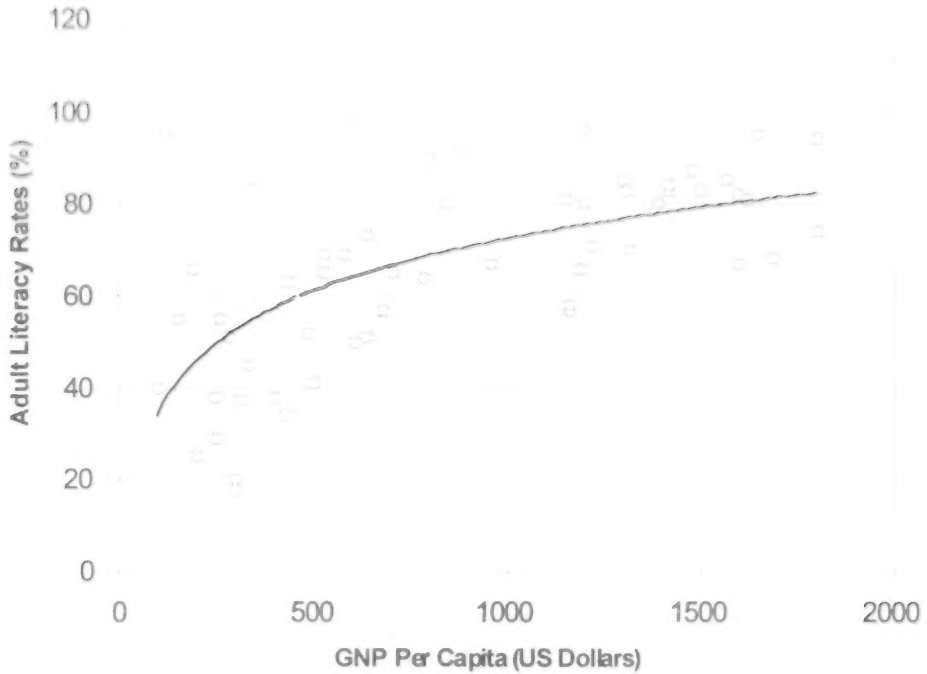
Source: UNESCO (1997)

FIGURE 7. FEMALE LITERACY RATES (AGE 15+) AND MORTALITY RATES OF CHILDREN UP TO AGE 5 IN DEVELOPING COUNTRIES, 1995



Source: UNESCO (1997)

FIGURE 8. ADULT LITERACY RATES (AGE 15+) & GNP PER CAPITA IN DEVELOPING COUNTRIES



Source: UNESCO (1997)